



# Verification Monitoring Report for the Riverton, Wyoming, Processing Site Update for 2007



U.S. Department  
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**Verification Monitoring Report for the  
Riverton, Wyoming, Processing Site**

**Update for 2007**

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Work Performed by S.M. Stoller Corporation under DOE Contract No. DE-AM01-07LM00060  
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## **1.0 Introduction**

The compliance strategy for the Riverton, Wyoming, Processing Site (Riverton site) is natural flushing in conjunction with institutional controls (ICs) and continued monitoring (DOE 1998a). Monitoring during the natural flushing period is referred to as verification monitoring because the purpose of the monitoring is to verify that the natural flushing strategy is progressing as predicted, and to verify that ICs are in place and functioning as intended. Data collected during verification monitoring are reported annually in a Verification Monitoring Report. These reports have been issued annually since 2001 (DOE 2001 through DOE 2007), and provide a summary of site conditions and an evaluation of monitoring data collected each year.

The purpose of this report is to present and evaluate the data collected during 2007, and to provide an annual update on the progress of the natural flushing compliance strategy. This report is based on results from two routine groundwater and surface water sampling events conducted at the Riverton site during June and November 2007. A 2-year flushing and monitoring program of the alternate water supply system concluded in 2007. A brief summary of the flushing program is provided in this report, and the results are detailed in the *Alternate Water Supply System Flushing Report Riverton, Wyoming, Processing Site* (DOE 2008).

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## **2.0 Site Conditions**

### **2.1 Hydrogeology**

The Riverton site is located on an alluvial terrace between the Wind River and the Little Wind River approximately 2.3 miles southwest of the town of Riverton, Wyoming (Figure 2–1). Groundwater occurs in three aquifers beneath the site: (1) surficial unconfined aquifer (surficial aquifer), (2) middle semiconfined aquifer, and (3) deeper confined aquifer (DOE 1998b). The surficial aquifer consists of approximately 20 feet (ft) of unconsolidated alluvial material, and the semiconfined and confined aquifers are composed of shales and sandstones of the upper units of the Eocene Wind River Formation, which is over 500 ft thick in the vicinity of the site. Groundwater in the surficial aquifer flows to the southeast. Depth to groundwater in the surficial aquifer is generally less than 10 ft below land surface. For compliance purposes, the surficial aquifer and semiconfined aquifer comprise the uppermost aquifer, which is the aquifer where compliance with groundwater standards is assessed.

### **2.2 Water Quality**

Shallow groundwater beneath and downgradient from the site was contaminated as a result of uranium processing activities from 1958 through 1963 (DOE 1998b). Constituents of potential concern (COPCs) in the groundwater beneath the Riverton site are manganese, molybdenum, sulfate, and uranium. COPCs were selected using a screening process that compared constituent concentrations with appropriate maximum concentration limits (MCLs), and evaluated potential human health risks and ecological risks. The COPCs selection process is detailed in the *Environmental Assessment of Ground Water Compliance at the Riverton, Wyoming, Uranium Mill Tailings Site* (DOE 1998c). Uranium and molybdenum were selected as indicator constituents for compliance monitoring in the *Final Ground Water Compliance Action Plan for the Riverton, Wyoming, Title I UMTRA Project Site* (GCAP) (DOE 1998a). These constituents were selected as indicator constituents because they are the most widely distributed and form significant aqueous plumes in the uppermost aquifer in the vicinity of the site. The MCLs for uranium and molybdenum are 0.044 milligram per liter (mg/L) and 0.10 mg/L, respectively.

### **2.3 Surface Remediation Activities**

Uranium mill tailings and other contaminated materials were removed from the Riverton processing site during 1988–1989 and encapsulated at the Umetco Gas Hills East disposal site (Figure 2–1). About 1.8 million cubic yards of tailings and associated materials were removed from the site for disposal.

### **2.4 Institutional Controls**

To be protective of human health and the environment during the natural flushing period, ICs are required to control exposure to contaminated groundwater. An institutional control boundary has been established at the Riverton site (Figure 2–2), delineating the area that requires protection. The ICs boundary was set to encompass the area of current groundwater contamination and a surrounding buffer zone to account for potential future plume migration.

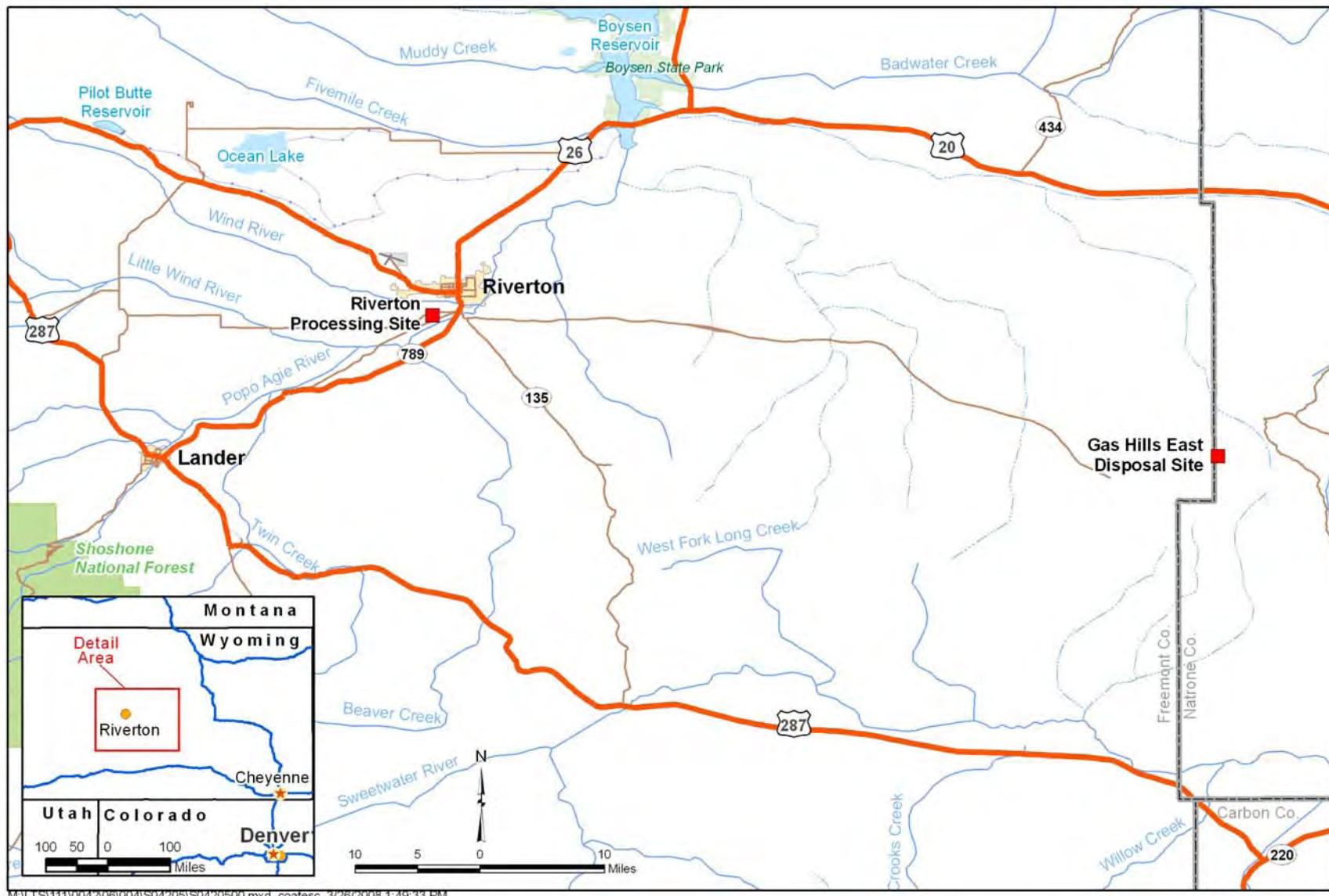


Figure 2-1. Site Location Map

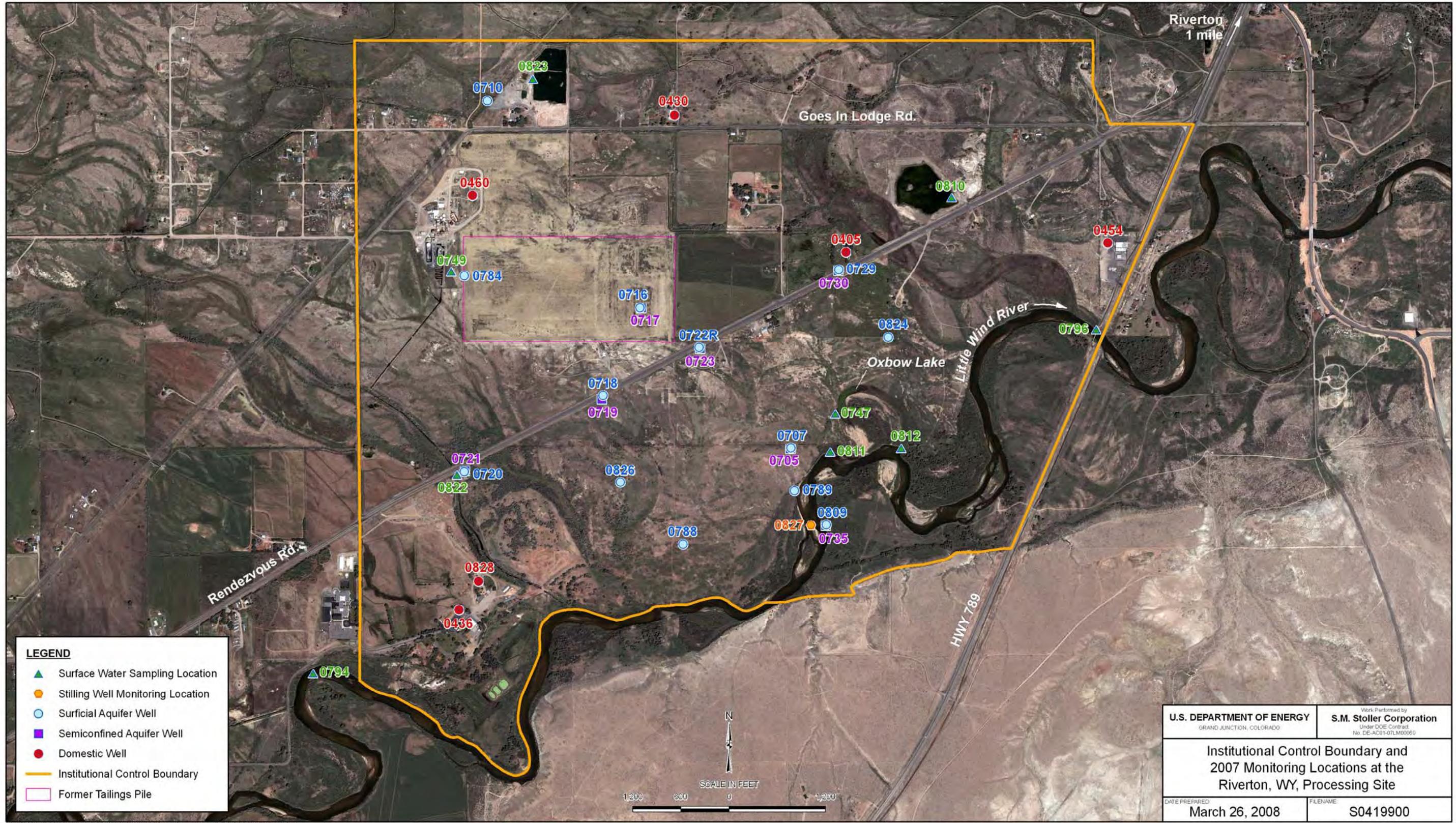


Figure 2–2. Institutional Control Boundary and 2007 Monitoring Locations at the Riverton, WY, Processing Site

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Cooperative efforts among the U. S. Department of Energy (DOE), the Northern Arapaho and Eastern Shoshone Tribes, and the State of Wyoming continue in order to obtain viable and enforceable ICs at the Riverton site, although all components have not been finalized. ICs in place prior to 2007 include the following components:

- An alternate water supply system, funded by DOE and operated by Northern Arapaho Utility Organization, supplies potable water to residents within the ICs boundary to minimize use of groundwater.
- Warning signs installed around the oxbow lake (Figure 2–2) explaining that the contaminated water is not safe for human consumption, with instructions not to drink, fish, or swim in the lake.
- A Tribal Ordinance places restrictions on well installation, prohibits surface impoundments, authorizes access to inspect and sample new wells, and provides notification to drilling contractors with Tribal permits of the groundwater contamination within the ICs boundary. Restrictions on well installation include a minimum depth of 150 ft below ground surface (approximately 50 ft below the top of the confined aquifer) and installation of surface casing through the contaminated upper aquifer.
- DOE distributed notification of existing groundwater contamination to area drilling contractors.

ICs finalized in 2007 include:

- A State of Wyoming Department of Environmental Quality notification of existing groundwater contamination will be provided to persons on privately-owned land applying for a gravel pit permit within the ICs boundary.
- A Bureau of Indian Affairs-provided notification of existing groundwater contamination will be provided to persons on Tribal land applying for a surface impoundment within and adjacent to the ICs boundary.
- The State of Wyoming State Engineer’s Office will inform DOE when permit applications are received for wells or surface impoundments within or adjacent to the IC boundary, provide DOE with a copy of the application for comment, and incorporate comments on the permit, if approved.

Other ICs that are in progress, but not finalized include:

- A Bureau of Indian Affairs-provided notification of existing groundwater contamination will be provided to all residents on Tribal land within and adjacent to the ICs boundary.
- A notification of existing groundwater contamination will be provided to property owners at the time of real estate transfers of lands within and adjacent to the ICs boundary.
- A perpetual covenant title restriction will be placed on the former millsite property currently owned by the State of Wyoming (Figure 4–4), that restricts land development and well drilling.

DOE funded an alternate drinking water supply system in 1998 to provide potable water to residents living within the ICs area. However, elevated concentrations of radionuclides (primarily radium-226 and radium-228) above the Federal drinking water standard were identified in the system in 2002 (Babits 2003), and were confirmed with data collected during the May 2004 sampling event. In 2005, DOE funded an independent analysis of the alternate water

supply system to determine the source of the elevated radionuclides, to make recommendations of how to reduce the radionuclide concentrations to acceptable levels, and to determine the integrity and long-term viability of the system. Conclusions of the independent analysis included:

- The source of radionuclides in the system is from the source well, which has naturally occurring concentrations below Federal drinking water standards.
- Radionuclides in the system are being concentrated by sediment accumulation in stagnant portions of the system and/or by biofilm capture.
- A flushing program should be implemented as a first step to reduce the radionuclide concentrations.
- System components will require maintenance or replacement to provide the required 100-year lifespan; future growth will require system expansion.

In response to the conclusions of the independent analysis, DOE conducted a 2-year flushing and monitoring program of the alternate water supply system, which concluded in 2007. The conclusion of the study was that a unidirectional flushing program is effective in controlling radionuclide buildup in the alternate water supply system. Results and details of this study are found in the *Alternate Water Supply System Flushing Report Riverton, Wyoming, Processing Site* (DOE 2008).

### 3.0 Monitoring Program

The monitoring program was expanded in 2007 to include two new monitor wells (0824 and 0826) to monitor the lateral edges of the uranium plume and to assess potential lateral contaminant plume movement. Three domestic wells (0422, 0951, and 0454) were removed from the sampling network because the residence/business is connected to the alternate water supply system, and the domestic well is no longer used as a potable water source. In addition, monitor well 0722R was installed to replace damaged monitor well 0722. The monitoring program for 2007 consisted of 20 monitor wells, 6 domestic wells, and 9 surface water locations, which are listed Table 3–1 and shown on Figure 2–2. Water levels were measured at 14 additional monitor wells.

The long-term monitoring network will continue to expand in 2008 with installation of an additional well along the lateral edge of the plume. The final long-term monitoring network will be specified in the *Long-Term Management Plan for the Riverton, Wyoming, Processing Site* (in progress).

*Table 3–1. 2007 Sampling Network at the Riverton Site*

| Location ID              | Description          | Sampling Event | Rationale  |
|--------------------------|----------------------|----------------|--|
| <b>DOE Monitor Wells</b> |                      |                |  |
| 0705                     | Semiconfined aquifer | June, November | Monitor semiconfined aquifer                     |
| 0707                     | Surficial aquifer    | June, November | Monitor centroid of plume                        |
| 0710                     | Surficial aquifer    | June, November | Background location                              |
| 0716                     | Surficial aquifer    | June, November | Monitor upgradient portion of plume              |
| 0717                     | Semiconfined aquifer | June, November | Monitor semiconfined aquifer                     |
| 0718                     | Surficial aquifer    | June, November | Monitor lateral plume movement                   |
| 0719                     | Semiconfined aquifer | June, November | Monitor semiconfined aquifer                     |
| 0720                     | Surficial aquifer    | June, November | Monitor lateral plume movement                   |
| 0721                     | Semiconfined aquifer | June, November | Monitor semiconfined aquifer                     |
| 0722R                    | Surficial aquifer    | June, November | Monitor centroid of plume                        |
| 0723                     | Semiconfined aquifer | June, November | Monitor semiconfined aquifer                     |
| 0729                     | Surficial aquifer    | June, November | Monitor lateral plume movement                   |
| 0730                     | Semiconfined aquifer | June, November | Monitor semiconfined aquifer                     |
| 0735                     | Semiconfined aquifer | June, November | Monitor semiconfined aquifer                     |
| 0784                     | Surficial aquifer    | June, November | Monitor lateral plume movement                   |
| 0788                     | Surficial aquifer    | June, November | Monitor lateral plume movement                   |
| 0789                     | Surficial aquifer    | June, November | Monitor centroid of plume                        |
| 0809                     | Surficial aquifer    | June, November | Monitor potential plume migration south of river |
| 0824                     | Surficial aquifer    | June, November | Monitor lateral plume movement                   |
| 0826                     | Surficial aquifer    | June, November | Monitor lateral plume movement                   |
| <b>Domestic Wells</b>    |                      |                |  |
| 0405                     | Private residence    | June, November | Verify low concentrations of COPCs               |
| 0430                     | Private residence    | June, November | Verify low concentrations of COPCs               |
| 0436                     | St Stephens Mission  | June, November | Verify low concentrations of COPCs               |
| 0454                     | 789 Bingo/Truck Stop | June           | Verify low concentrations of COPCs               |
| 0460                     | Peak Sulfur Plant    | June, November | Verify low concentrations of COPCs               |
| 0828                     | St Stephens Mission  | June, November | Verify low concentrations of COPCs               |

*Table 3–1 (continued). 2007 Sampling Network at the Riverton Site*

| <b>Location ID</b>   | <b>Description</b>         | <b>Sampling Event</b> | <b>Rationale</b>                         |
|----------------------|----------------------------|-----------------------|--|
| <b>Surface Water</b> |                            |                       |  |
| 0747                 | Oxbow lake                 | June, November        | Impacted by groundwater discharge        |
| 0749                 | Peak Sulfur ditch          | June, November        | Effluent from sulfur plant               |
| 0794                 | Little Wind River          | June, November        | Upstream of predicted plume discharge    |
| 0796                 | Little Wind River          | June, November        | Downstream of predicted plume discharge  |
| 0810                 | Pond—former gravel pit     | June, November        | Potential for impact—within ICs boundary |
| 0811                 | Little Wind River          | June, November        | Within area of predicted plume discharge |
| 0812                 | Little Wind River          | June, November        | Within area of predicted plume discharge |
| 0822                 | West side irrigation ditch | June, November        | Potential for impact—within ICs boundary |
| 0823                 | Pond—former gravel pit     | June, November        | Upgradient of plume; within ICs area     |

## **4.0 Results of 2007 Monitoring**

### **4.1 Groundwater**

#### **4.1.1 Groundwater Quality**

Results of the monitoring program to date show that concentrations of uranium and molybdenum in groundwater in the surficial aquifer are still above their respective MCLs; however, concentrations are decreasing, indicating that natural flushing is occurring in the surficial aquifer. Results from surficial aquifer monitor wells on the lateral edge of the contaminant plumes indicate lateral migration of the plumes does not appear to be occurring. Evaluation of lateral plume migration will be evaluated further after installation of an additional monitor well. Time-concentration plots for uranium in wells located within contaminant plumes and wells on the lateral edge of the contaminant plumes in the surficial aquifer are shown in Figure 4–1. The distribution of uranium in the surficial aquifer, based on November 2007 sampling results, is shown on Figure 4–2. Time-concentration plots for molybdenum in wells located within contaminant plumes, and wells bordering contaminant plumes in the surficial aquifer are shown in Figure 4–3; the distribution of molybdenum in the surficial aquifer, based on November 2007 sampling results, is shown on Figure 4–4.

Concentrations of uranium and molybdenum in groundwater in the semiconfined aquifer that underlies the surficial aquifer are still significantly below corresponding MCLs, indicating no impact from site-related contamination in this unit (Figure 4–5).

Groundwater quality data by parameter for locations sampled during 2007 are provided in Appendix A.

#### **4.1.2 Groundwater Flow**

Water levels were measured at the majority of wells in the monitoring network in June and November in order to verify groundwater flow direction, and to assess vertical gradients throughout the ICs area. Water level data are included in Appendix B.

Assessment of horizontal groundwater flow direction in the surficial aquifer is required to assure the monitoring network is adequate for assessing contaminant plume movement and to assure the ICs boundary provides a sufficient buffer for contaminant plume movement. As shown in Figure 4–6 and Figure 4–7, groundwater elevation contours for the surficial aquifer indicate a general flow direction to the southeast, which is consistent with historically measured flow directions and contaminant plume configurations. In addition, groundwater flow direction is consistent between the June and November monitoring events.

Vertical gradients are used to assess the direction that groundwater will flow vertically. Using the methods that have traditionally been applied to assess vertical flow, a negative gradient indicates potential for upward groundwater flow, and a positive gradient indicates potential for downward groundwater flow. Regardless of the direction indicated by gradient, vertical migration of groundwater is expected to be relatively minor because of the low vertical hydraulic conductivities of the confining layers separating aquifers. Vertical gradients calculated

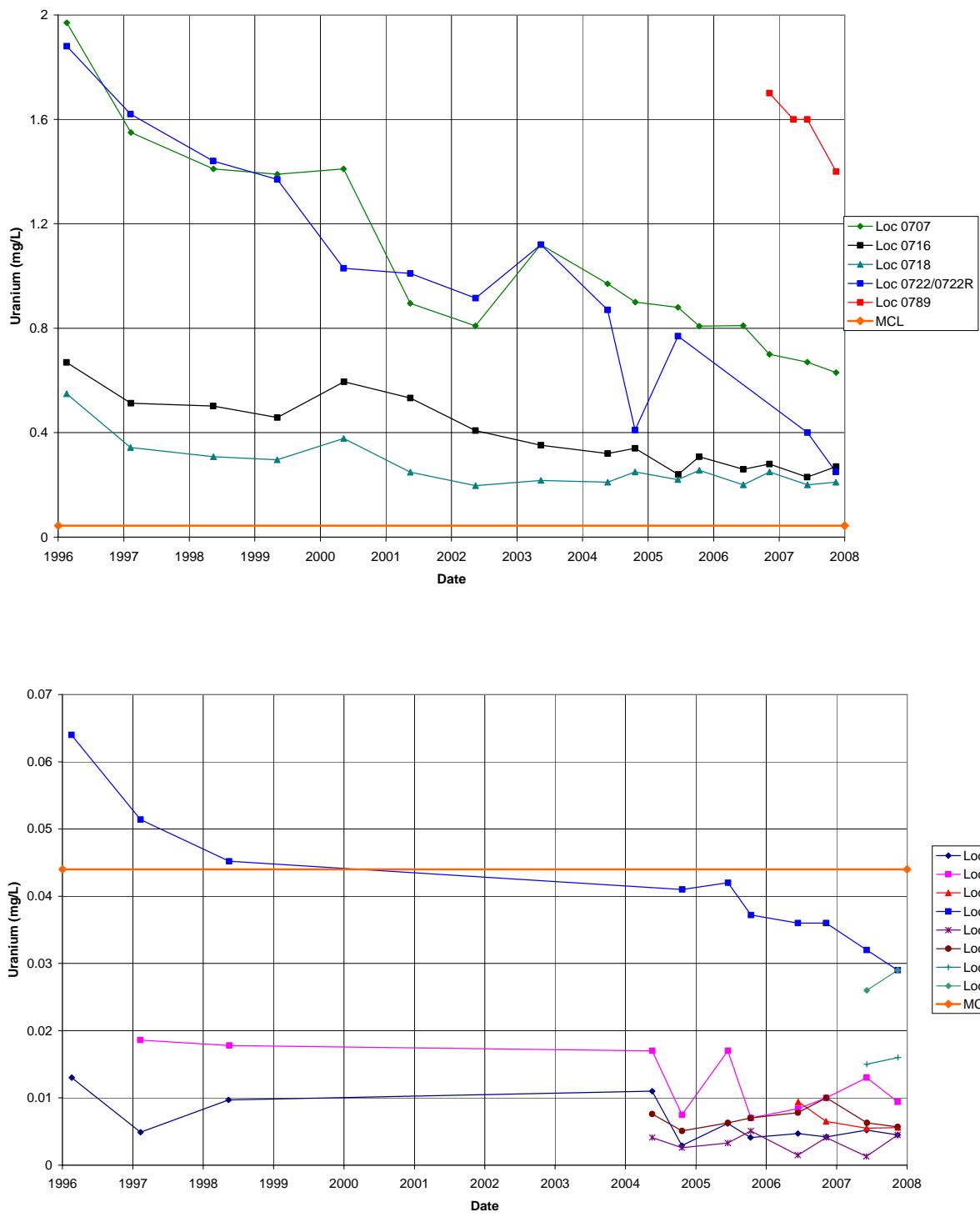
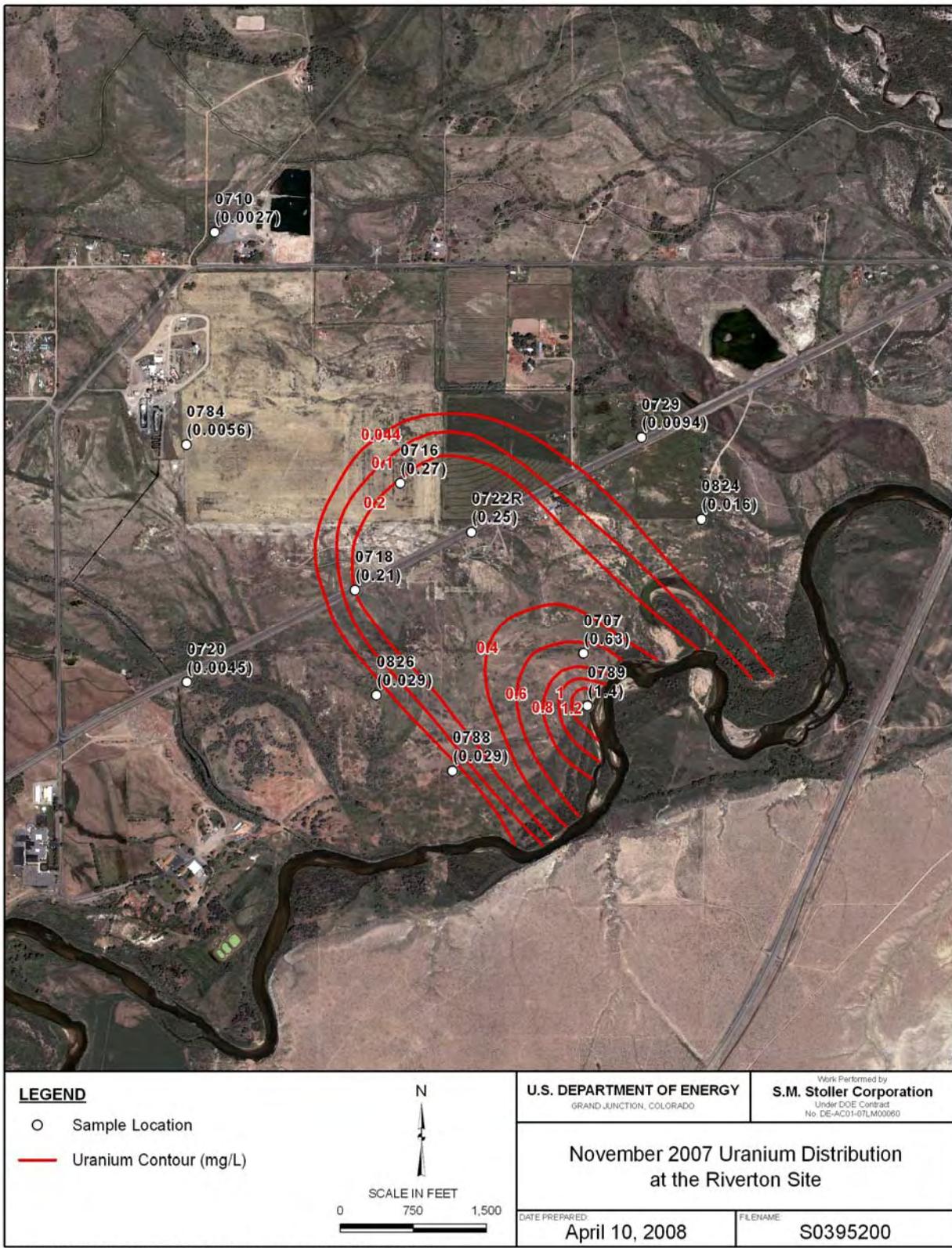
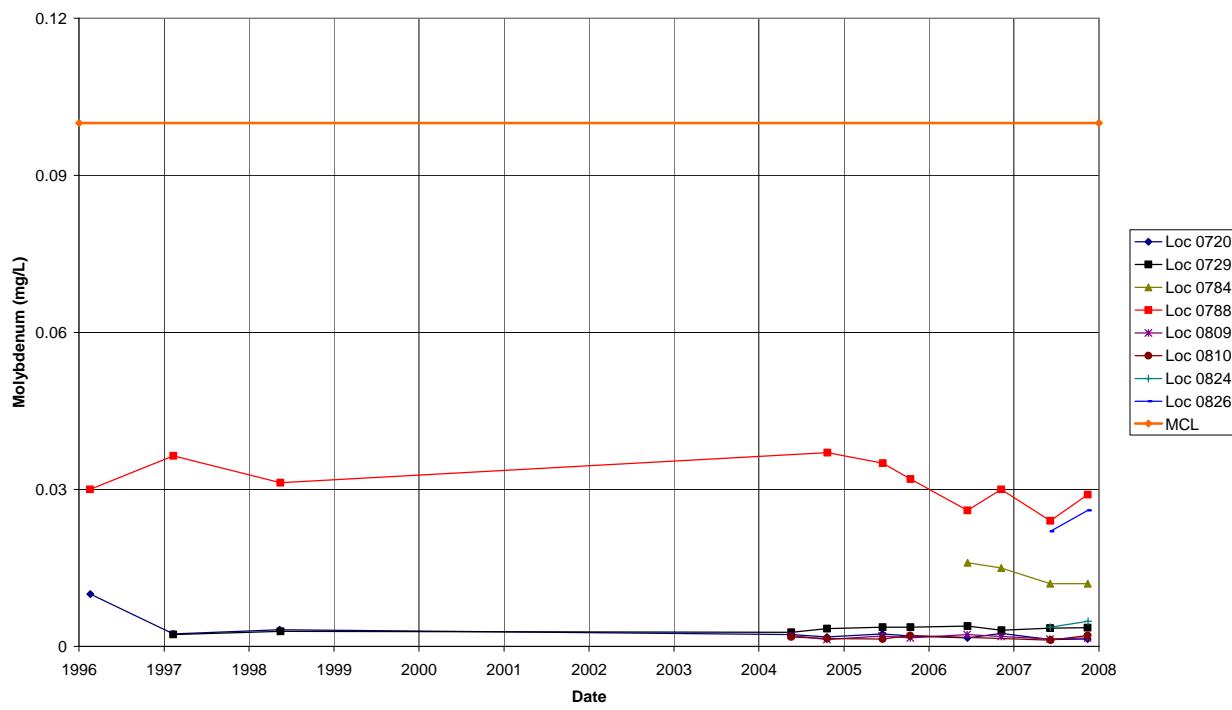
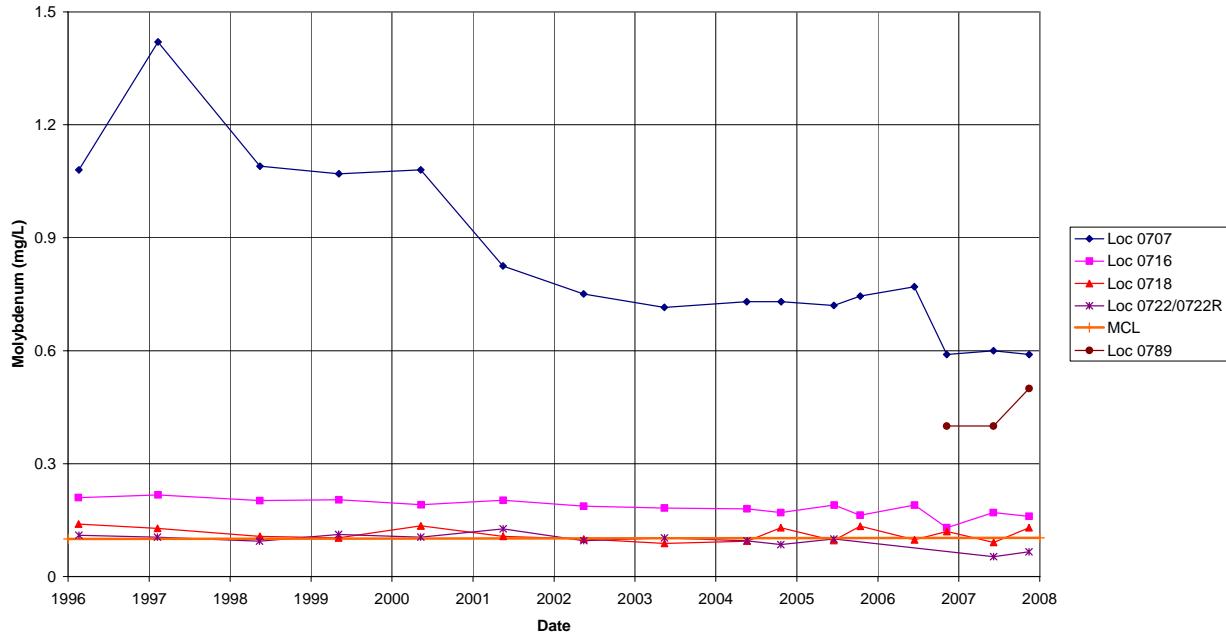


Figure 4–1. Uranium Concentrations in Surficial Aquifer Wells



*Figure 4–2. November 2007 Uranium Distribution at the Riverton Site*



*Figure 4-3. Molybdenum Concentrations in Surficial Aquifer Wells*

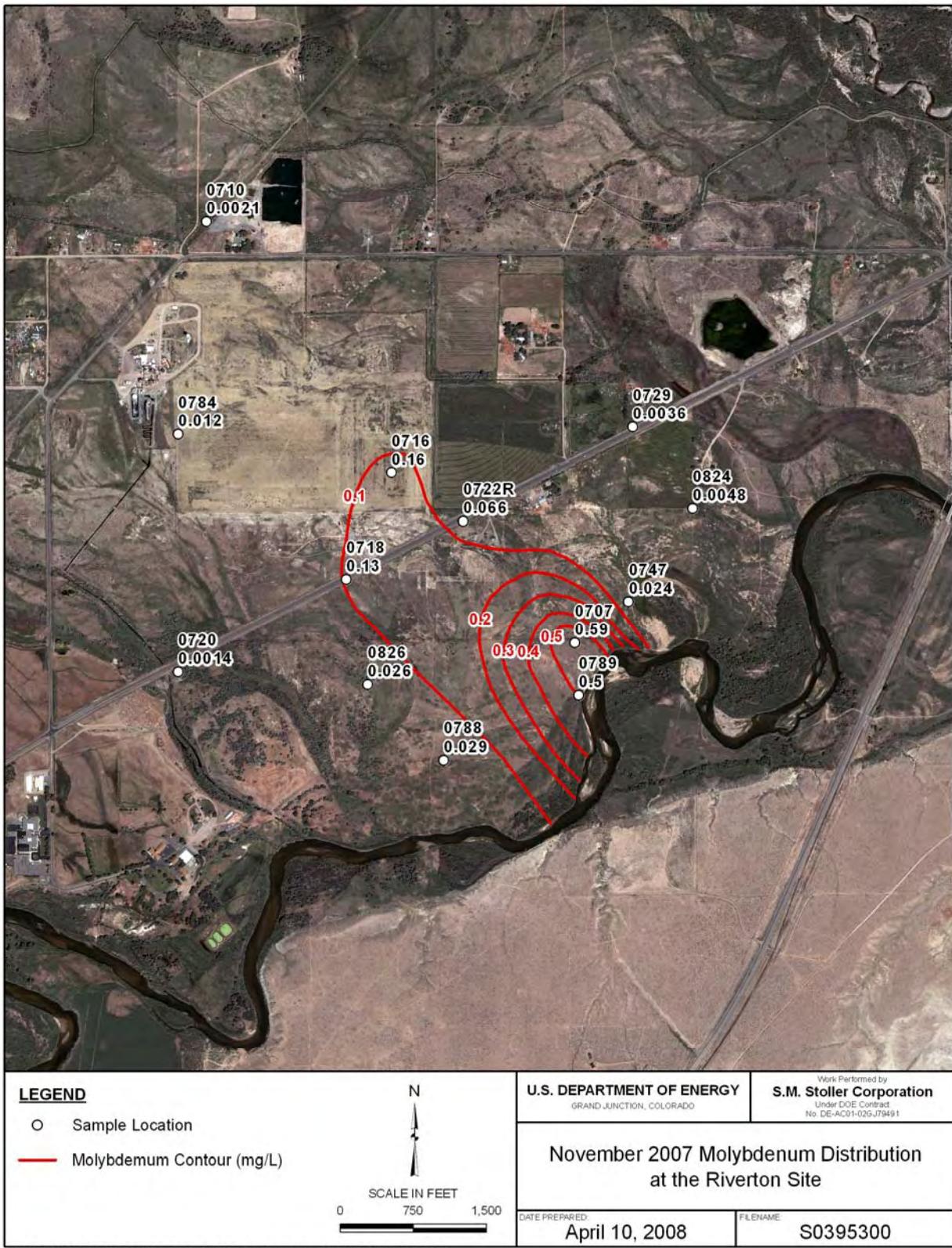


Figure 4–4. November 2007 Molybdenum Distribution at the Riverton Site

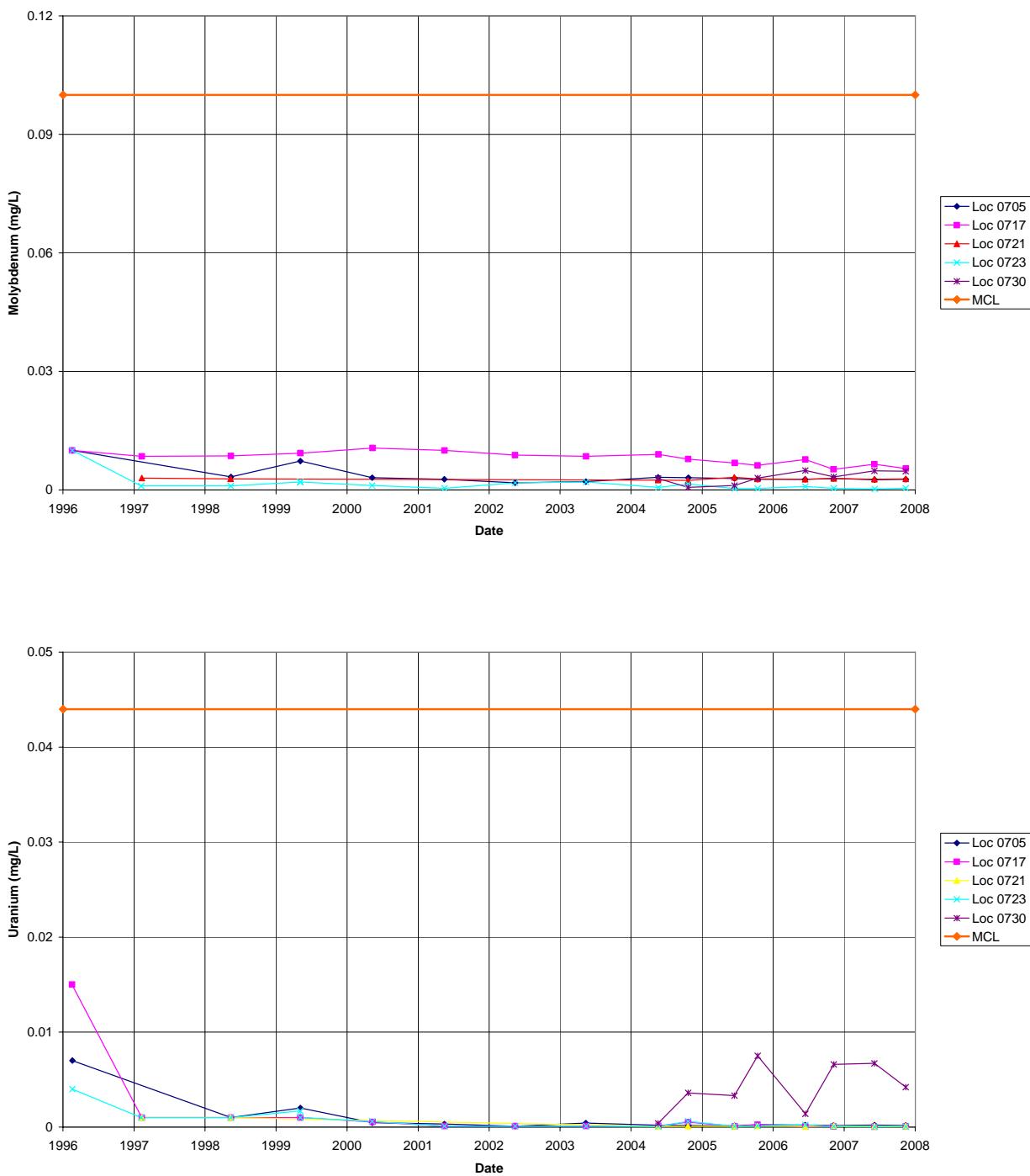


Figure 4–5. Molybdenum and Uranium Concentrations in Semiconfined Aquifer Wells

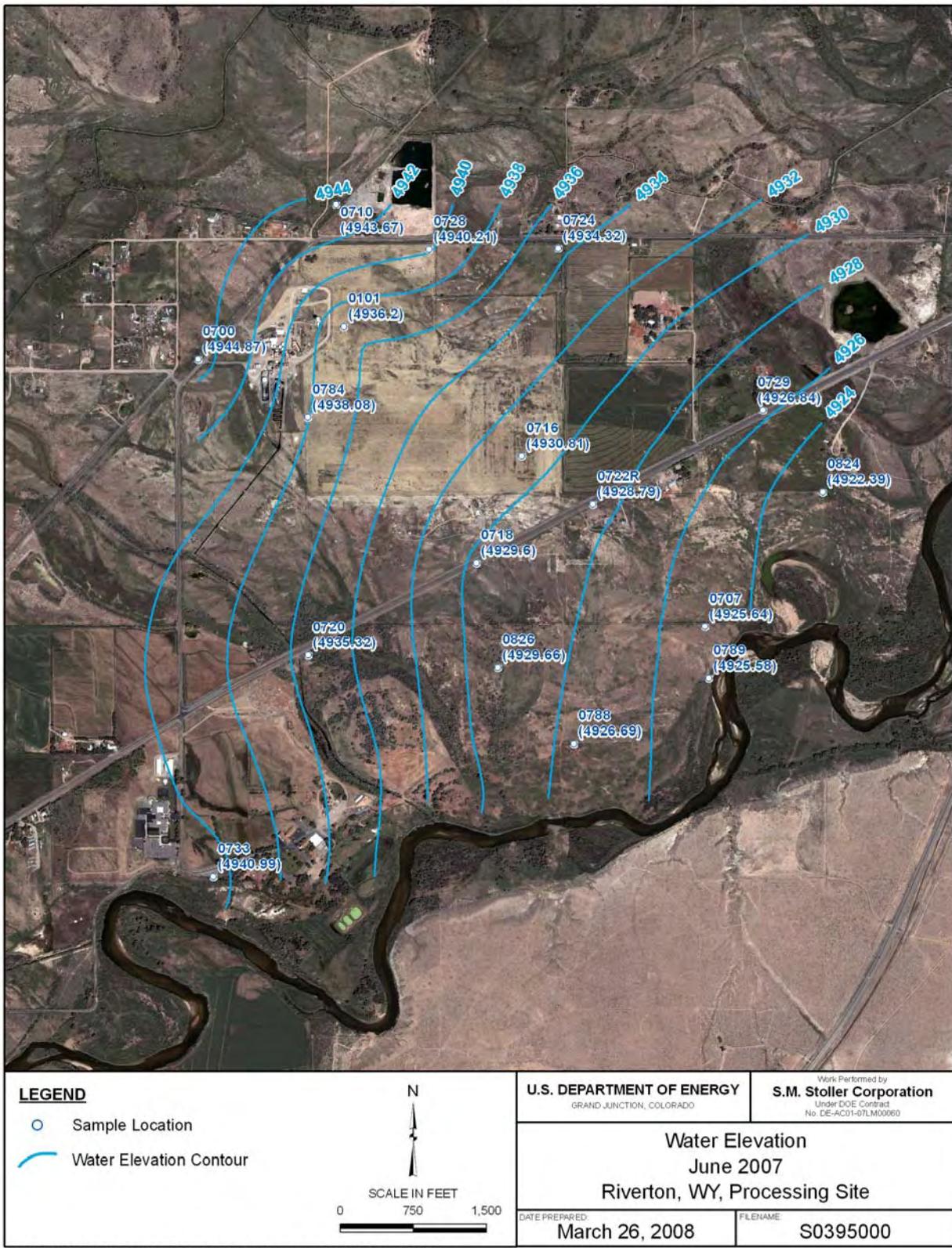
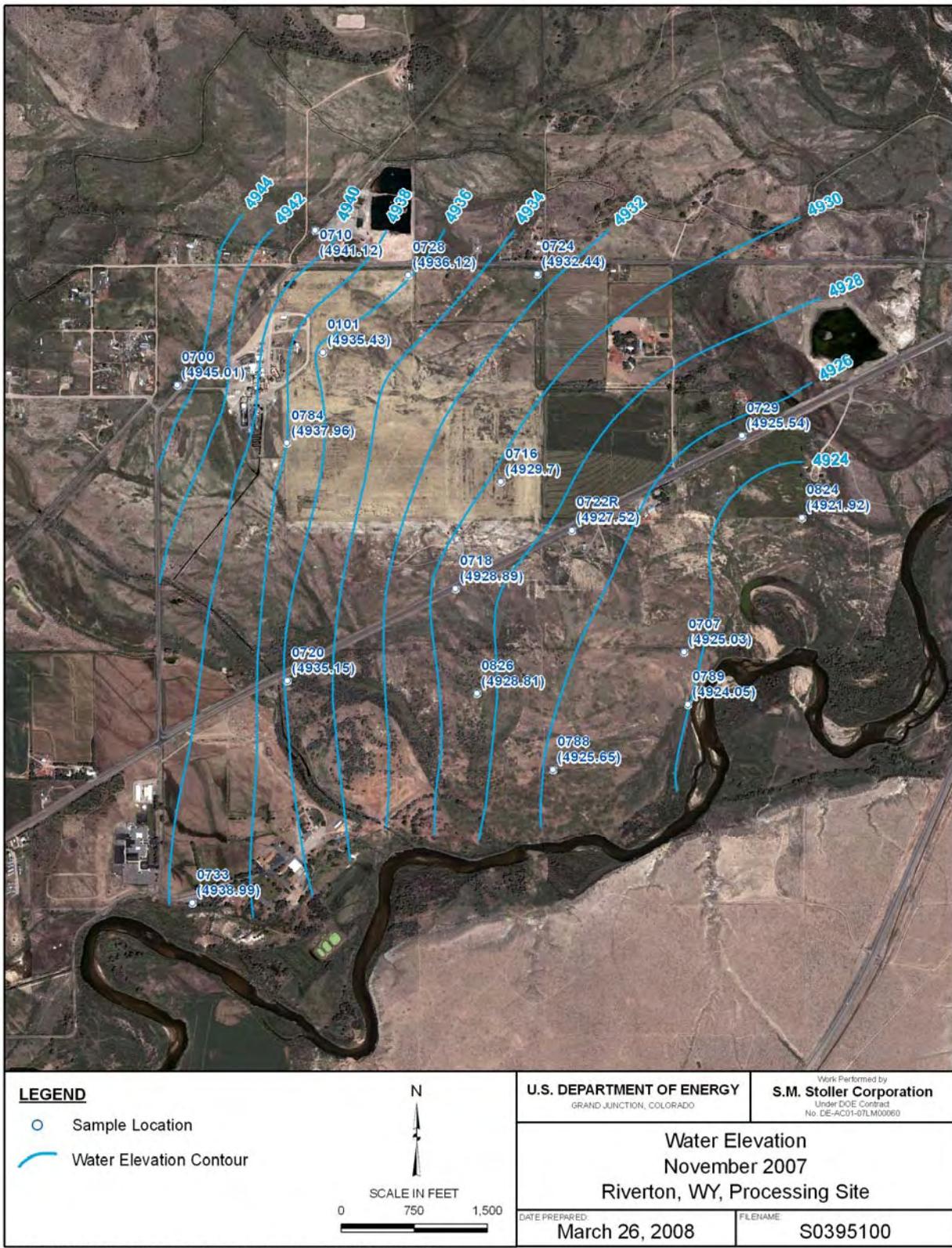


Figure 4–6. June 2007 Water Elevation, Riverton, WY, Processing Site



*Figure 4–7. November 2007 Water Elevation, Riverton, WY, Processing Site*

from June and November data are shown in Table 4–1. General observations from Table 4–1 include:

- (1) Vertical gradients in the confined aquifer are upward at two locations, as expected.
- (2) The well cluster adjacent to the sulfuric acid plant (0101, 0111, and 0110) indicates a downward vertical gradient in the confined aquifer, which is likely a reflection of continuous long-term pumping of the confined aquifer from the acid-plant production well.
- (3) Vertical gradients in the semiconfined aquifer are variable, but tend to be downward near surface water features, and upward away from surface water features. Surface water is likely recharging the surficial aquifer causing a localized increase in heads in the surficial aquifer, and a resulting downward vertical gradient.

## 4.2 Domestic Wells

All domestic wells sampled in 2007 are completed in the confined aquifer. Results from domestic wells did not indicate any impacts from the Riverton site. Concentrations of molybdenum and uranium in samples collected from domestic wells were two to three orders of magnitude below their respective standards. Data obtained from sampling of domestic wells in 2007 are provided in Appendix C.

## 4.3 Surface Water

Samples were collected at four locations on the Little Wind River (Figure 2–2), which flows generally from the southwest to the northeast adjacent to the site. Contaminated groundwater likely discharges to the Little Wind River, but there is no evidence that it impacts surface water quality in the river. Uranium and molybdenum concentrations measured in samples collected from river locations adjacent to and downstream of the groundwater plume (0811, 0812, and 0796), are essentially the same as the concentrations from river samples collected upstream of the groundwater plume (0794).

Two ponds formed from groundwater discharge into former gravel pits were sampled as part of the long-term monitoring network. These ponds are primarily used for fishing and swimming. Samples collected from these ponds (locations 0810 and 0823) and the west side irrigation ditch (0822) had concentrations of uranium within the range of background uranium concentrations in groundwater (0.001 to 0.0156 mg/L), which indicates minimal impacts from the site. Uranium concentrations over time in river and pond locations are shown in Figure 4–8.

The sample collected at the ditch that carries discharge water from the Chemtrade sulfuric acid plant (0749) had elevated concentrations of sulfate in 2007 (2,100 mg/L). Sulfate concentrations have been in the 2,000 to 3,000 mg/L range since 2004. The elevated sulfate concentrations in the Chemtrade ditch water has affected sulfate concentrations farther downstream in the west side irrigation ditch (1,100 mg/L at location 0822 in June). Water samples from the west side irrigation ditch also have been analyzed for radium-226 and radium-228 in response to potentially elevated concentrations of these constituents in the sediments within the ditch. All radium concentrations have been below detection or estimated (based on the low concentration and analytical uncertainty), which indicates no impact to water quality in the ditch.

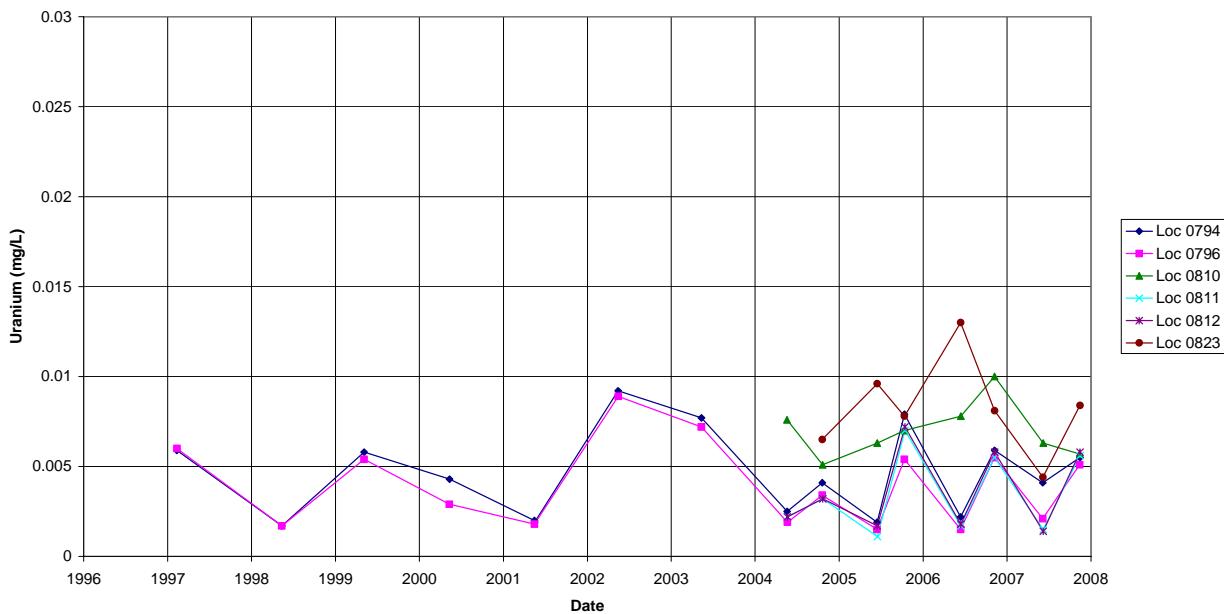
Table 4–1. Riverton Vertical Gradients

| Well ID | Aquifer      | Water Elevation June 2007 | Water Elevation Nov 2007 | Vertical Gradient <sup>a</sup> June 2007 | Vertical Gradient Nov 2007 |
|---------|--------------|---------------------------|--------------------------|--|----------------------------|
| 0724    | Surficial    | 4934.32                   | 4932.44                  |  |                            |
| 0725    | Semiconfined | 4934.47                   | 4932.43                  | -0.008                                   | 0.0006                     |
| 0726    | Confined     | 4936.51                   | 4934.18                  | -0.019                                   | -0.015                     |
| 0101    | Surficial    | 4936.02                   | 4935.43                  |  |                            |
| 0111    | Semiconfined | 4938.28                   | 4935.94                  | -0.077                                   | -0.019                     |
| 0110    | Confined     | 4935.91                   | No data                  | 0.006                                    | –                          |
| 784     | Surficial    | 4938.08                   | 4937.96                  |  |                            |
| 0732    | Semiconfined | 4936.48                   | 4936.17                  | 0.060                                    | 0.068                      |
| 0716    | Surficial    | 4930.81                   | 4929.70                  |  |                            |
| 0717    | Semiconfined | 4931.05                   | 4929.70                  | -0.007                                   | 0.0                        |
| 0707    | Surficial    | 4925.64                   | 4925.03                  |  |                            |
| 0705    | Semiconfined | 4924.80                   | 4923.86                  | 0.030                                    | 0.041                      |
| 0709    | Confined     | 4927.70                   | 4927.65                  | -0.0269                                  | -0.034                     |
| 0718    | Surficial    | 4929.6                    | 4928.89                  |  |                            |
| 0719    | Semiconfined | 4930.04                   | 4929.26                  | -0.022                                   | -0.019                     |
| 0722R   | Surficial    | 4928.79                   | 4927.52                  |  |                            |
| 0723    | Semiconfined | 4928.93                   | 4927.71                  | -0.005                                   | -0.006                     |
| 0720    | Surficial    | 4935.32                   | 4935.15                  |  |                            |
| 0721    | Semiconfined | 4932.61                   | 4932.14                  | 0.075                                    | 0.083                      |
| 0729    | Surficial    | 4926.84                   | 4925.54                  |  |                            |
| 0730    | Semiconfined | 4926.42                   | 4925.90                  | 0.018                                    | -0.016                     |
| 0809    | Surficial    | 4925.00                   | 4924.07                  |  |                            |
| 0735    | Semiconfined | 4924.82                   | 4923.81                  | 0.001                                    | 0.014                      |

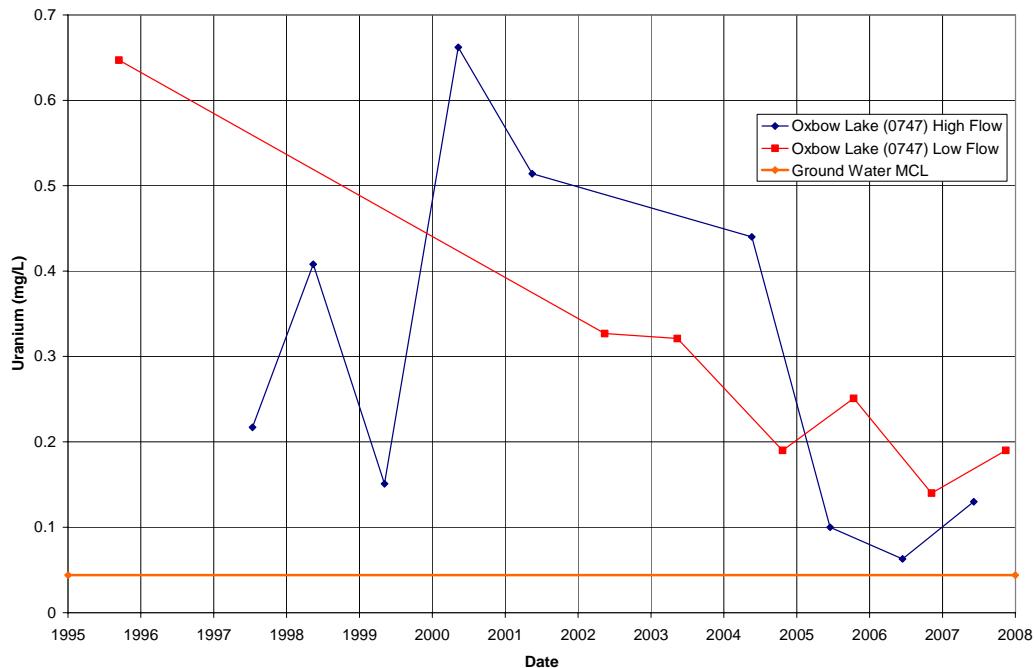
<sup>a</sup>Vertical gradient from the semiconfined aquifer is between the semiconfined aquifer and the surficial aquifer, and the vertical gradient from the confined aquifer is between the confined aquifer and the surficial aquifer. A negative value indicates an upward vertical gradient.

Concentrations of uranium have been and continue to be elevated (Figure 4–8) in surface water in the oxbow lake (location 0747), which was formed by a shift in the river path in 1994. Hydraulic and water quality data indicate that the oxbow lake is fed by the discharge of contaminated groundwater; therefore, elevated concentrations are expected.

**Riverton Processing Site  
Surface Water  
Uranium Concentration**



**Riverton Processing Site  
Oxbow Lake Uranium Concentrations**



*Figure 4–8. Uranium Concentrations in Surface Water*

Concentrations of uranium in the oxbow lake have been variable over time. This variability is attributed to surface inflow to the lake from the Little Wind River during high river stage, which causes a dilution of uranium concentrations. Figure 4–8 splits sampling events into high-flow and low-flow events, with the high-flow events reflecting the potential for river inflow diluting uranium concentrations in the oxbow lake, and the low-flow events reflecting a low potential for river inflow diluting uranium concentrations in the oxbow lake. As shown in the low-flow graph, uranium concentrations in the oxbow lake are declining, which indicates the oxbow lake is naturally flushing along with the surficial aquifer. Surface water quality data by parameter for locations sampled during 2007 are provided in Appendix D.

## 5.0 Natural Flushing Assessment

Groundwater modeling has predicted that the alluvial aquifer will naturally flush contaminants to levels below applicable standards within the 100-year regulatory timeframe, which started with the approval of the GCAP in 1998. To assess the progress of natural flushing, comparison to hydrogeologic modeling predictions, trend analysis, and other quantitative techniques are applied to temporal plots of concentrations at individual wells.

Comparison of surficial aquifer concentrations of molybdenum and uranium as predicted by probabilistic hydrogeologic modeling (DOE 1998b) with actual concentrations measured in samples from monitor well 0707 (located near the center of the contaminant plumes) is shown in Figure 5–1. To date, concentrations of molybdenum and uranium in monitor well 0707 are tracking closely to model predictions, which show cleanup occurring well within the 100-year time frame.

Trend analysis using the Mann-Kendall test (Gilbert 1987) was performed to assess the temporal behavior of uranium concentrations. Uranium was selected as an indicator parameter because: (1) it is widespread throughout the surficial aquifer; (2) its concentration exceeded the standard in numerous wells in the monitoring network during 2006; (3) historical concentrations are up to two orders of magnitude above the standard; and (4) it was one of the constituents whose transport was modeled in previous investigations (DOE 1998b). The Mann-Kendall test determines if an upward trend, downward trend, or no trend exists. As shown in Table 5–1, the four wells that have recent uranium concentrations above the standard, have more than 10 historical data points, and show downward trends.

*Table 5–1. Assessment of Uranium Concentration Trends and Flushing Times in Wells at the Riverton Site*

| Well ID                 | Trend <sup>a</sup> | N <sup>b</sup> | Curve Type  | Curve Correlation ( $r^c$ ) | Estimated Completion (Years) |
|-------------------------|--------------------|----------------|-------------|-----------------------------|------------------------------|
| 0707                    | Downward           | 12             | Exponential | 0.9328                      | 50.8                         |
| 0716                    | Downward           | 12             | Exponential | 0.9259                      | 36.8                         |
| 0718                    | Downward           | 12             | Logarithmic | 0.9104                      | 141.8                        |
| 0722/0722R <sup>d</sup> | Downward           | 12             | Exponential | 0.8883                      | 26.5                         |

<sup>a</sup>Data collected from 1996 to 2006; when more than one data point was available in a year, the low-flow sampling event was used.

<sup>b</sup>N=number of observations.

<sup>c</sup>r=Correlation coefficient – a value of 1 represents a perfect correlation.

<sup>d</sup>Well 0722R replaced damaged well 0722 and is offset adjacent to 0722. Well 0722 was destroyed in 2006.

To further assess the progress of natural flushing and estimate the pace with which it is occurring, additional data analysis was conducted. Curve–fitting techniques in Microsoft Excel computer software package were used to approximate actual uranium concentration data (Figure 5–2 and Figure 5–3). Each resulting curve was then extrapolated to the point where it intercepts the uranium standard, and the corresponding time provides an estimate of flushing time. As shown in Table 5–1, the number of years estimated to achieve compliance with the uranium standard ranges from 26 to 142. Although 142 years is longer than the 100-year regulatory limit, estimates will likely change as more data are collected. Correlation coefficients resulting from the curves fit to each well’s data are listed in Table 5–1. These coefficients estimate how well the fitted curves match the data, with a perfect correlation equaling 1.

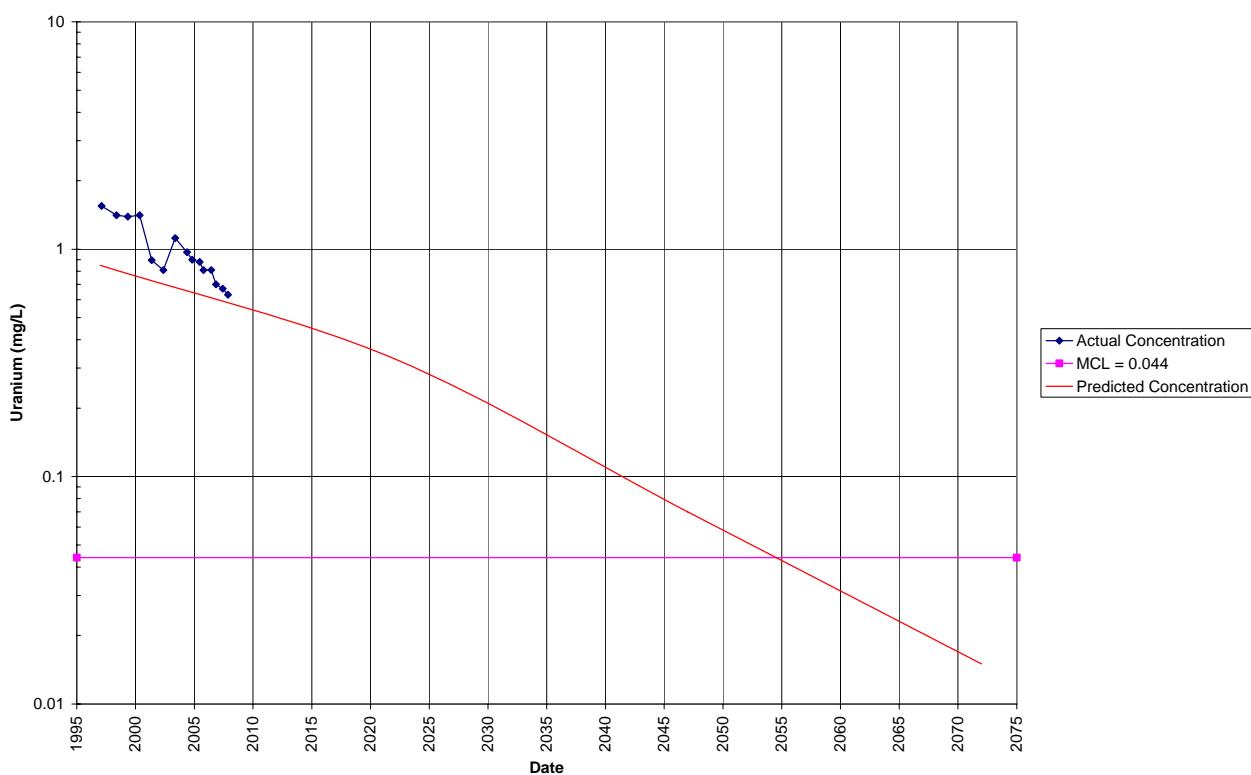
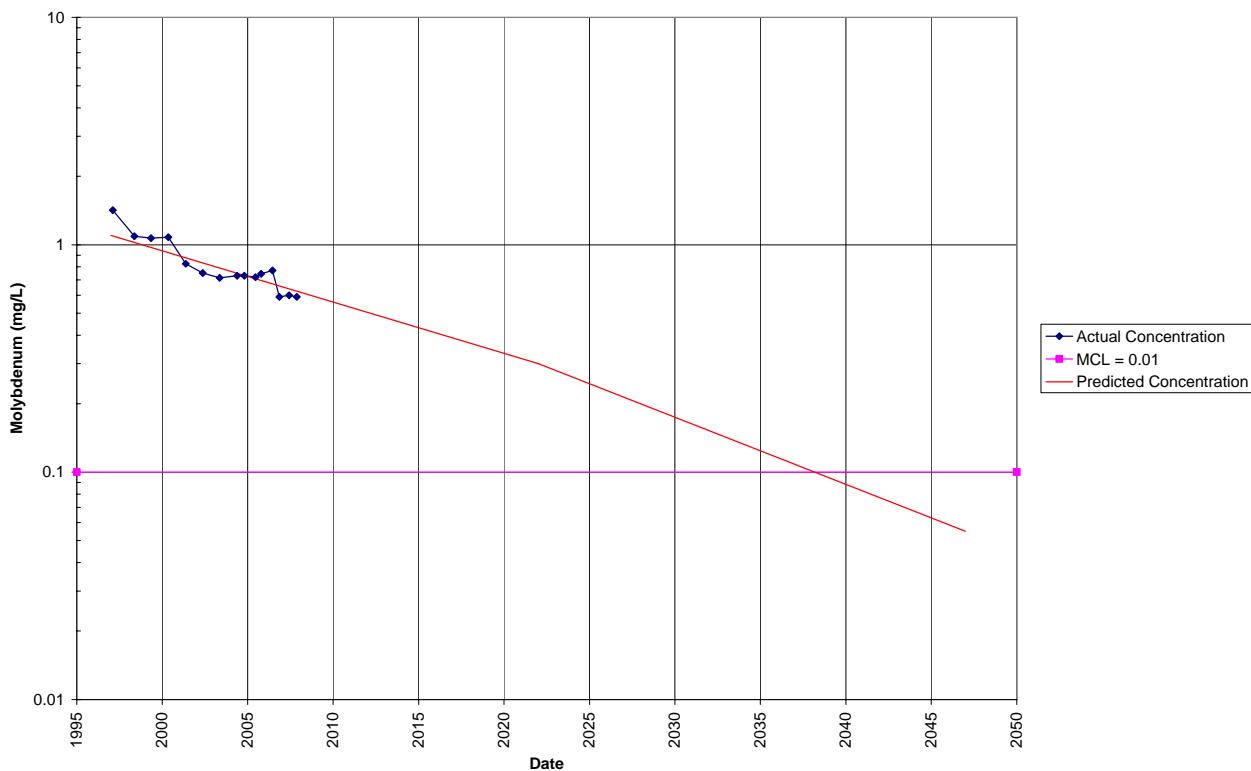


Figure 5–1. Predicted and Actual Contaminant Concentrations in Well 0707

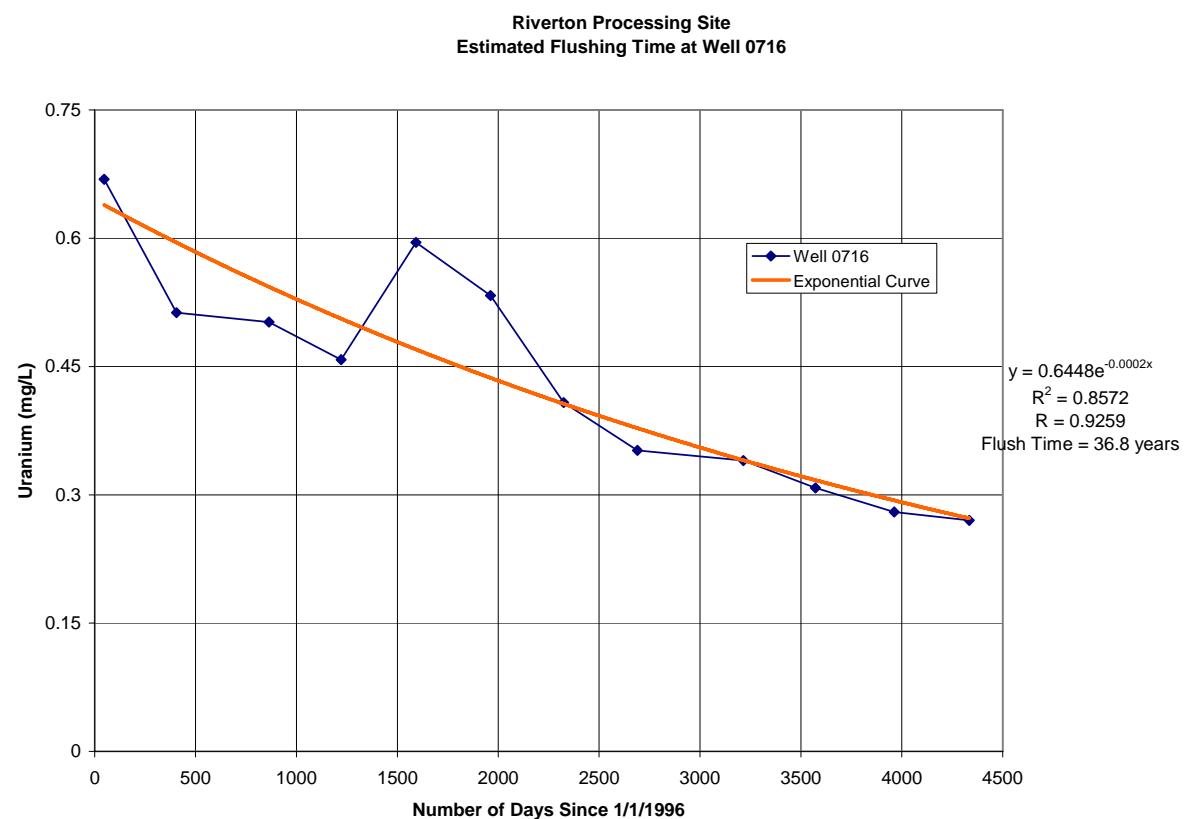
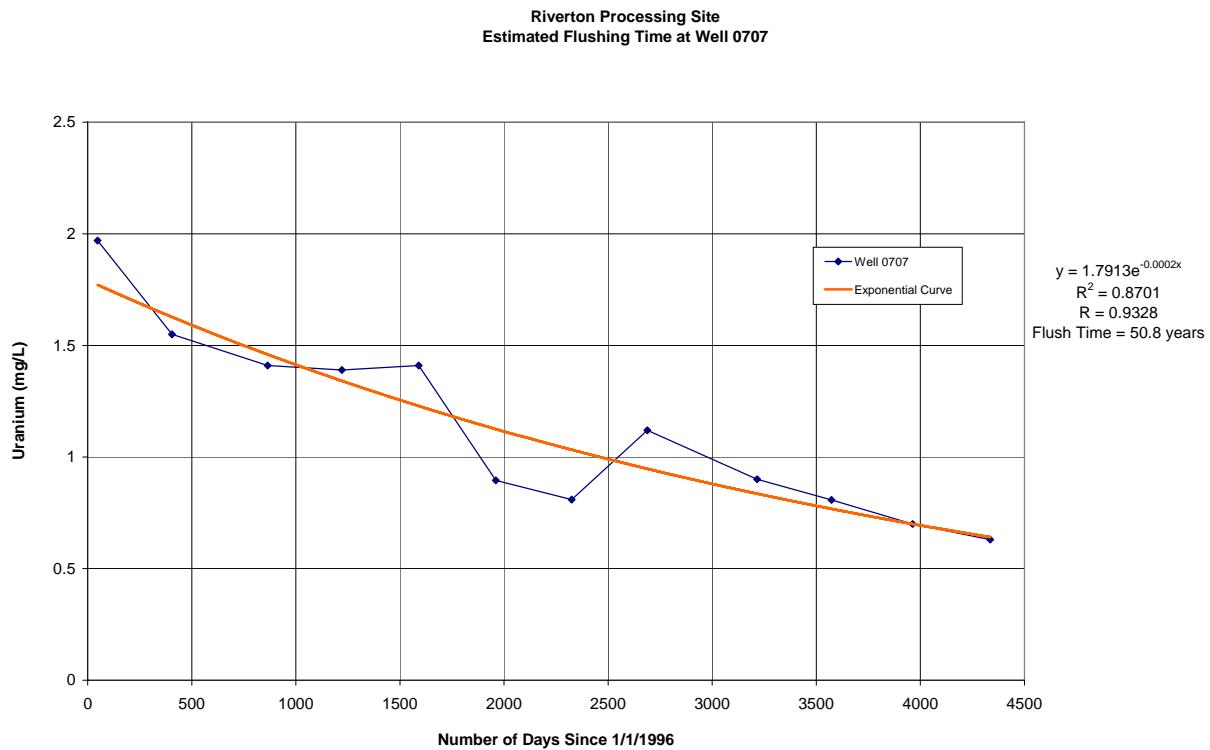
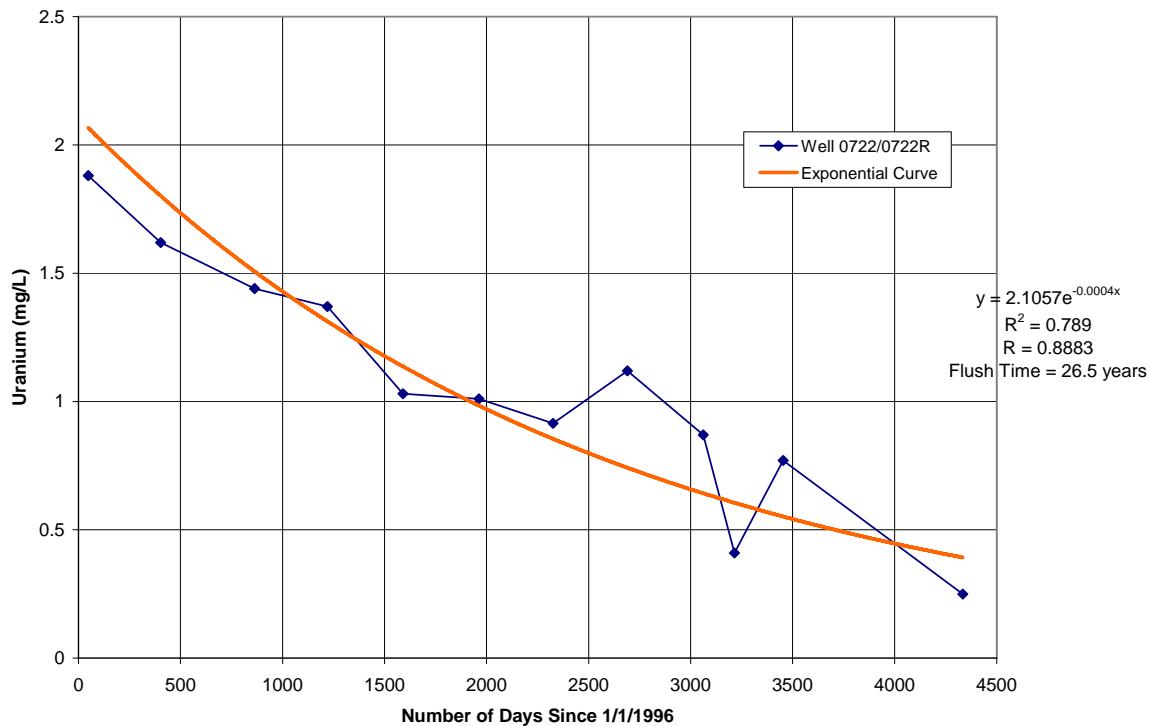


Figure 5–2. Estimated Flushing Time in Surficial Aquifer Wells 0707 and 0716

Riverton Processing Site  
Estimated Flushing Time at Well 0722/0722R



Riverton Processing Site  
Estimated Flushing Time in Well 0718

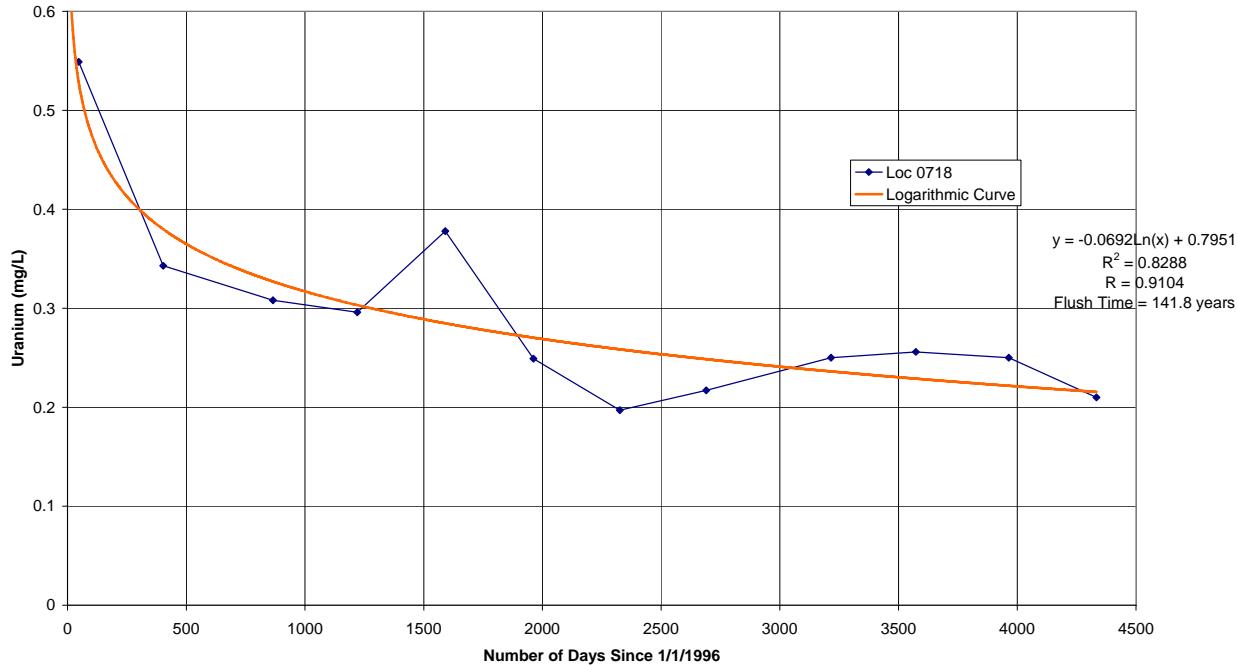


Figure 5–3. Estimated Flushing Time in Surficial Aquifer Wells 0718 and 0722

## **6.0 Conclusions**

Uranium and molybdenum are the indicator constituents for compliance monitoring at the Riverton site (DOE 1998a). While concentrations of both uranium and molybdenum in groundwater in the surficial aquifer are still above their respective MCLs, levels are generally decreasing and comparable to modeling predictions, indicating that natural flushing is occurring in the aquifer. Uranium concentrations in wells above the standard show a downward statistical trend, and curve extrapolation of uranium concentrations project a flushing time for most wells in less than 60 years. Data from one well projects a flushing time of more than 100 years. Surface water in the oxbow lake adjacent to the Little Wind River continues to be impacted as it is fed by discharge of shallow groundwater from contaminant plumes, although concentrations are decreasing.

Verification monitoring of groundwater and surface water from designated locations will continue on a semiannual basis, and the long-term monitoring program for the site will be specified in the *Long Term Maintenance Plan for the Riverton, Wyoming, Processing Site* (in progress).

End of current text

## 7.0 References

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**Appendix A**

**Groundwater Quality Data**

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CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER                    | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |      |    | DETECTION LIMIT | UN-CERTAINTY |
|------------------------------|-------|-------------|---------------|------------|------|-------------|-----------|--------|-------------|------|----|-----------------|--------------|
|                              |       |             |               | DATE       | ID   |             |           |        | LAB         | DATA | QA |                 |              |
| Alkalinity, Total (As CaCO3) | mg/L  | 0705        | WL            | 06/06/2007 | N001 | SE          | D         | 52     | FQ          | #    | -  | -               | -            |
|                              | mg/L  | 0705        | WL            | 11/14/2007 | N001 | SE          | D         | 59     | FQ          | #    | -  | -               | -            |
|                              | mg/L  | 0707        | WL            | 06/06/2007 | N001 | SF          | D         | 306    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0707        | WL            | 11/14/2007 | N001 | SF          | D         | 297    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0710        | WL            | 06/07/2007 | N001 | SF          | U         | 201    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0710        | WL            | 11/14/2007 | N001 | SF          | U         | 175    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0716        | WL            | 06/05/2007 | N001 | SF          | O         | 279    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0716        | WL            | 11/14/2007 | N001 | SF          | O         | 267    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0717        | WL            | 06/05/2007 | N001 | SE          | O         | 204    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0717        | WL            | 11/14/2007 | N001 | SE          | O         | 214    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0718        | WL            | 06/07/2007 | N001 | SF          | D         | 387    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0718        | WL            | 11/13/2007 | N001 | SF          | D         | 379    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0719        | WL            | 06/07/2007 | N001 | SE          | D         | 91     | FQ          | #    | -  | -               | -            |
|                              | mg/L  | 0719        | WL            | 11/13/2007 | N001 | SE          | D         | 87     | FQ          | #    | -  | -               | -            |
|                              | mg/L  | 0720        | WL            | 06/05/2007 | N001 | SF          | C         | 257    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0720        | WL            | 11/13/2007 | N001 | SF          | C         | 234    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0721        | WL            | 06/05/2007 | N001 | SE          | C         | 90     | F           | #    | -  | -               | -            |
|                              | mg/L  | 0721        | WL            | 11/13/2007 | N001 | SE          | C         | 88     | F           | #    | -  | -               | -            |
|                              | mg/L  | 0722R       | WL            | 06/07/2007 | N001 | SF          |           | 300    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0723        | WL            | 06/07/2007 | N001 | SE          | D         | 344    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0723        | WL            | 11/13/2007 | N001 | SE          | D         | 361    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0729        | WL            | 06/05/2007 | N001 | SF          | D         | 336    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0729        | WL            | 11/13/2007 | N001 | SF          | D         | 321    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0730        | WL            | 06/05/2007 | N001 | SE          | D         | 352    | FQ          | #    | -  | -               | -            |
|                              | mg/L  | 0730        | WL            | 11/13/2007 | N001 | SE          | D         | 370    | F           | #    | -  | -               | -            |
|                              | mg/L  | 0735        | WL            | 06/04/2007 | N001 | SE          | D         | 169    | F           | #    | -  | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER                    | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE: DATE | ID   | ZONE COMPL. | FLOW REL. | RESULT  | QUALIFIERS: LAB | DATA QA | DETECTION LIMIT | UN-CERTAINTY |
|------------------------------|-------|-------------|---------------|--------------|------|-------------|-----------|---------|-----------------|---------|-----------------|--------------|
| Alkalinity, Total (As CaCO3) | mg/L  | 0735        | WL            | 11/13/2007   | N001 | SE          | D         | 158     | F               | #       | -               | -            |
|                              | mg/L  | 0784        | WL            | 06/05/2007   | N001 | SF          | U         | 333     | F               | #       | -               | -            |
|                              | mg/L  | 0784        | WL            | 11/14/2007   | N001 | SF          | U         | 303     | F               | #       | -               | -            |
|                              | mg/L  | 0788        | WL            | 06/06/2007   | N001 | SF          | C         | 377     | F               | #       | -               | -            |
|                              | mg/L  | 0788        | WL            | 11/14/2007   | N001 | SF          | C         | 370     | F               | #       | -               | -            |
|                              | mg/L  | 0789        | WL            | 03/21/2007   | N001 | SF          | D         | 442     |                 | #       | -               | -            |
|                              | mg/L  | 0789        | WL            | 06/06/2007   | N001 | SF          | D         | 419     | F               | #       | -               | -            |
|                              | mg/L  | 0789        | WL            | 11/14/2007   | N001 | SF          | D         | 425     | F               | #       | -               | -            |
|                              | mg/L  | 0809        | WL            | 06/04/2007   | N001 | SF          |           | 103     | F               | #       | -               | -            |
|                              | mg/L  | 0809        | WL            | 11/13/2007   | N001 | SF          |           | 111     | F               | #       | -               | -            |
|                              | mg/L  | 0824        | WL            | 06/06/2007   | N001 | SF          |           | 279     | F               | #       | -               | -            |
|                              | mg/L  | 0824        | WL            | 11/15/2007   | N001 | SF          |           | 325     | F               | #       | -               | -            |
| Dissolved Oxygen             | mg/L  | 0718        | WL            | 06/07/2007   | N001 | SF          | D         | 2.41    | F               | #       | -               | -            |
|                              | mg/L  | 0719        | WL            | 06/07/2007   | N001 | SE          | D         | 3.41    | FQ              | #       | -               | -            |
|                              | mg/L  | 0722R       | WL            | 06/07/2007   | N001 | SF          |           | 2.32    | F               | #       | -               | -            |
|                              | mg/L  | 0723        | WL            | 06/07/2007   | N001 | SE          | D         | 2.40    | F               | #       | -               | -            |
| Manganese                    | mg/L  | 0705        | WL            | 06/06/2007   | N001 | SE          | D         | 0.00099 | B               | FQ      | #               | 8.4E-05      |
|                              | mg/L  | 0705        | WL            | 11/14/2007   | N001 | SE          | D         | 0.0078  | FQ              | #       | 0.00016         | -            |
|                              | mg/L  | 0707        | WL            | 06/06/2007   | N001 | SF          | D         | 1.100   | F               | #       | 8.4E-05         | -            |
|                              | mg/L  | 0707        | WL            | 11/14/2007   | N001 | SF          | D         | 0.910   | F               | #       | 0.00016         | -            |
|                              | mg/L  | 0710        | WL            | 06/07/2007   | N001 | SF          | U         | 0.025   | F               | #       | 8.4E-05         | -            |
|                              | mg/L  | 0710        | WL            | 11/14/2007   | N001 | SF          | U         | 0.038   | F               | #       | 0.00016         | -            |
|                              | mg/L  | 0716        | WL            | 06/05/2007   | N001 | SF          | O         | 0.370   | F               | #       | 8.4E-05         | -            |
|                              | mg/L  | 0716        | WL            | 11/14/2007   | N001 | SF          | O         | 0.250   | F               | #       | 0.00016         | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT  | QUALIFIERS: |      |         | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|------------|------|-------------|-----------|---------|-------------|------|---------|-----------------|--------------|
|           |       |             |               | DATE       | ID   |             |           |         | LAB         | DATA | QA      |                 |              |
| Manganese | mg/L  | 0717        | WL            | 06/05/2007 | N001 | SE          | O         | 0.240   | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0717        | WL            | 11/14/2007 | N001 | SE          | O         | 0.190   | F           | #    | 0.00016 | -               |              |
|           | mg/L  | 0718        | WL            | 06/07/2007 | N001 | SF          | D         | 1.100   | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0718        | WL            | 11/13/2007 | N001 | SF          | D         | 0.970   | F           | #    | 0.00016 | -               |              |
|           | mg/L  | 0719        | WL            | 06/07/2007 | N001 | SE          | D         | 0.0032  | B           | FQ   | #       | 8.4E-05         | -            |
|           | mg/L  | 0719        | WL            | 11/13/2007 | N001 | SE          | D         | 0.093   | FQ          | #    | 0.00016 | -               |              |
|           | mg/L  | 0720        | WL            | 06/05/2007 | N001 | SF          | C         | 0.027   | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0720        | WL            | 11/13/2007 | N001 | SF          | C         | 0.0045  | B           | F    | #       | 0.00016         | -            |
|           | mg/L  | 0721        | WL            | 06/05/2007 | N001 | SE          | C         | 0.0053  | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0721        | WL            | 11/13/2007 | N001 | SE          | C         | 0.0063  | F           | #    | 0.00016 | -               |              |
|           | mg/L  | 0722R       | WL            | 06/07/2007 | N001 | SF          |           | 0.0033  | B           | F    | #       | 8.4E-05         | -            |
|           | mg/L  | 0722R       | WL            | 11/13/2007 | N001 | SF          |           | 0.00018 | B           | UF   | #       | 0.00016         | -            |
|           | mg/L  | 0723        | WL            | 06/07/2007 | N001 | SE          | D         | 0.440   | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0723        | WL            | 11/13/2007 | N001 | SE          | D         | 0.520   | F           | #    | 0.00016 | -               |              |
|           | mg/L  | 0729        | WL            | 06/05/2007 | N001 | SF          | D         | 0.012   | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0729        | WL            | 11/13/2007 | N001 | SF          | D         | 0.0037  | B           | F    | #       | 0.00016         | -            |
|           | mg/L  | 0730        | WL            | 06/05/2007 | N001 | SE          | D         | 0.057   | FQ          | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0730        | WL            | 11/13/2007 | N001 | SE          | D         | 0.057   | F           | #    | 0.00016 | -               |              |
|           | mg/L  | 0735        | WL            | 06/04/2007 | N001 | SE          | D         | 0.028   | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0735        | WL            | 11/13/2007 | N001 | SE          | D         | 0.190   | F           | #    | 0.00016 | -               |              |
|           | mg/L  | 0784        | WL            | 06/05/2007 | N001 | SF          | U         | 0.520   | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0784        | WL            | 11/14/2007 | N001 | SF          | U         | 0.300   | F           | #    | 0.00016 | -               |              |
|           | mg/L  | 0788        | WL            | 06/06/2007 | N001 | SF          | C         | 0.013   | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0788        | WL            | 11/14/2007 | N001 | SF          | C         | 0.012   | F           | #    | 0.00016 | -               |              |
|           | mg/L  | 0789        | WL            | 06/06/2007 | N001 | SF          | D         | 0.820   | F           | #    | 8.4E-05 | -               |              |
|           | mg/L  | 0789        | WL            | 11/14/2007 | N001 | SF          | D         | 0.340   | F           | #    | 0.00016 | -               |              |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER  | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |      |         | DETECTION LIMIT | UN-CERTAINTY |
|------------|-------|-------------|---------------|------------|------|-------------|-----------|--------|-------------|------|---------|-----------------|--------------|
|            |       |             |               | DATE       | ID   |             |           |        | LAB         | DATA | QA      |                 |              |
| Manganese  | mg/L  | 0789        | WL            | 11/14/2007 | N002 | SF          | D         | 0.350  | F           | #    | 0.00016 | -               |              |
|            | mg/L  | 0809        | WL            | 06/04/2007 | N001 | SF          |           | 0.200  | F           | #    | 8.4E-05 | -               |              |
|            | mg/L  | 0809        | WL            | 11/13/2007 | N001 | SF          |           | 0.790  | F           | #    | 0.00016 | -               |              |
|            | mg/L  | 0824        | WL            | 06/06/2007 | N001 | SF          |           | 0.0069 | F           | #    | 8.4E-05 | -               |              |
|            | mg/L  | 0824        | WL            | 11/15/2007 | N001 | SF          |           | 0.0048 | B           | UF   | #       | 0.00016         | -            |
|            | mg/L  | 0826        | WL            | 06/06/2007 | N001 | SF          |           | 0.510  | F           | #    | 8.4E-05 | -               |              |
|            | mg/L  | 0826        | WL            | 06/06/2007 | N002 | SF          |           | 0.510  | F           | #    | 8.4E-05 | -               |              |
|            | mg/L  | 0826        | WL            | 11/14/2007 | N001 | SF          |           | 0.450  | F           | #    | 0.00016 | -               |              |
| Molybdenum | mg/L  | 0705        | WL            | 06/06/2007 | N001 | SE          | D         | 0.0026 | FQ          | #    | 0.00008 | -               |              |
|            | mg/L  | 0705        | WL            | 11/14/2007 | N001 | SE          | D         | 0.0027 | FQ          | #    | 9.8E-05 | -               |              |
|            | mg/L  | 0707        | WL            | 06/06/2007 | N001 | SF          | D         | 0.600  | F           | #    | 0.00079 | -               |              |
|            | mg/L  | 0707        | WL            | 11/14/2007 | N001 | SF          | D         | 0.590  | F           | #    | 0.00097 | -               |              |
|            | mg/L  | 0710        | WL            | 06/07/2007 | N001 | SF          | U         | 0.0016 | F           | #    | 0.00008 | -               |              |
|            | mg/L  | 0710        | WL            | 11/14/2007 | N001 | SF          | U         | 0.0021 | F           | #    | 9.8E-05 | -               |              |
|            | mg/L  | 0716        | WL            | 06/05/2007 | N001 | SF          | O         | 0.170  | F           | #    | 0.0004  | -               |              |
|            | mg/L  | 0716        | WL            | 11/14/2007 | N001 | SF          | O         | 0.160  | F           | #    | 0.00049 | -               |              |
|            | mg/L  | 0717        | WL            | 06/05/2007 | N001 | SE          | O         | 0.0065 | F           | #    | 0.00008 | -               |              |
|            | mg/L  | 0717        | WL            | 11/14/2007 | N001 | SE          | O         | 0.0054 | F           | #    | 9.8E-05 | -               |              |
|            | mg/L  | 0718        | WL            | 06/07/2007 | N001 | SF          | D         | 0.091  | F           | #    | 0.00016 | -               |              |
|            | mg/L  | 0718        | WL            | 11/13/2007 | N001 | SF          | D         | 0.130  | F           | #    | 0.00049 | -               |              |
|            | mg/L  | 0719        | WL            | 06/07/2007 | N001 | SE          | D         | 0.015  | FQ          | #    | 0.00008 | -               |              |
|            | mg/L  | 0719        | WL            | 11/13/2007 | N001 | SE          | D         | 0.015  | FQ          | #    | 9.8E-05 | -               |              |
|            | mg/L  | 0720        | WL            | 06/05/2007 | N001 | SF          | C         | 0.0013 | F           | #    | 0.00008 | -               |              |
|            | mg/L  | 0720        | WL            | 11/13/2007 | N001 | SF          | C         | 0.0014 | F           | #    | 9.8E-05 | -               |              |
|            | mg/L  | 0721        | WL            | 06/05/2007 | N001 | SE          | C         | 0.0027 | F           | #    | 0.00008 | -               |              |
|            | mg/L  | 0721        | WL            | 11/13/2007 | N001 | SE          | C         | 0.0028 | F           | #    | 9.8E-05 | -               |              |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER                     | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT  | QUALIFIERS: |      |         | UN-CERTAINTY |
|-------------------------------|-------|-------------|---------------|------------|------|-------------|-----------|---------|-------------|------|---------|--------------|
|                               |       |             |               | DATE       | ID   |             |           |         | LAB         | DATA | QA      |              |
| Molybdenum                    | mg/L  | 0722R       | WL            | 06/07/2007 | N001 | SF          |           | 0.053   | F           | #    | 0.0004  | -            |
|                               | mg/L  | 0722R       | WL            | 11/13/2007 | N001 | SF          |           | 0.066   | F           | #    | 0.00049 | -            |
|                               | mg/L  | 0723        | WL            | 06/07/2007 | N001 | SE          | D         | 0.00023 | B           | UF   | #       | 0.00008      |
|                               | mg/L  | 0723        | WL            | 11/13/2007 | N001 | SE          | D         | 0.00044 | B           | UF   | #       | 9.8E-05      |
|                               | mg/L  | 0729        | WL            | 06/05/2007 | N001 | SF          | D         | 0.0035  | F           | #    | 0.00008 | -            |
|                               | mg/L  | 0729        | WL            | 11/13/2007 | N001 | SF          | D         | 0.0036  | F           | #    | 9.8E-05 | -            |
|                               | mg/L  | 0730        | WL            | 06/05/2007 | N001 | SE          | D         | 0.0048  | FQ          | #    | 0.00008 | -            |
|                               | mg/L  | 0730        | WL            | 11/13/2007 | N001 | SE          | D         | 0.0047  | F           | #    | 9.8E-05 | -            |
|                               | mg/L  | 0735        | WL            | 06/04/2007 | N001 | SE          | D         | 0.0016  | F           | #    | 0.00008 | -            |
|                               | mg/L  | 0735        | WL            | 11/13/2007 | N001 | SE          | D         | 0.0019  | F           | #    | 9.8E-05 | -            |
|                               | mg/L  | 0784        | WL            | 06/05/2007 | N001 | SF          | U         | 0.012   | F           | #    | 0.00008 | -            |
|                               | mg/L  | 0784        | WL            | 11/14/2007 | N001 | SF          | U         | 0.012   | F           | #    | 9.8E-05 | -            |
|                               | mg/L  | 0788        | WL            | 06/06/2007 | N001 | SF          | C         | 0.024   | F           | #    | 0.00008 | -            |
|                               | mg/L  | 0788        | WL            | 11/14/2007 | N001 | SF          | C         | 0.029   | F           | #    | 9.8E-05 | -            |
|                               | mg/L  | 0789        | WL            | 06/06/2007 | N001 | SF          | D         | 0.400   | F           | #    | 0.0016  | -            |
|                               | mg/L  | 0789        | WL            | 11/14/2007 | N001 | SF          | D         | 0.500   | F           | #    | 0.002   | -            |
|                               | mg/L  | 0789        | WL            | 11/14/2007 | N002 | SF          | D         | 0.500   | F           | #    | 0.002   | -            |
|                               | mg/L  | 0809        | WL            | 06/04/2007 | N001 | SF          |           | 0.0014  | F           | #    | 0.00008 | -            |
|                               | mg/L  | 0809        | WL            | 11/13/2007 | N001 | SF          |           | 0.0016  | F           | #    | 9.8E-05 | -            |
|                               | mg/L  | 0824        | WL            | 06/06/2007 | N001 | SF          |           | 0.0037  | F           | #    | 0.00008 | -            |
|                               | mg/L  | 0824        | WL            | 11/15/2007 | N001 | SF          |           | 0.0048  | F           | #    | 9.8E-05 | -            |
|                               | mg/L  | 0826        | WL            | 06/06/2007 | N001 | SF          |           | 0.022   | F           | #    | 0.00008 | -            |
|                               | mg/L  | 0826        | WL            | 06/06/2007 | N002 | SF          |           | 0.022   | F           | #    | 0.00008 | -            |
|                               | mg/L  | 0826        | WL            | 11/14/2007 | N001 | SF          |           | 0.026   | F           | #    | 9.8E-05 | -            |
| Oxidation Reduction Potential | mV    | 0705        | WL            | 06/06/2007 | N001 | SE          | D         | 107     | FQ          | #    | -       | -            |
|                               | mV    | 0705        | WL            | 11/14/2007 | N001 | SE          | D         | -73     | FQ          | #    | -       | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER                  | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE DATE | ID   | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |      |    | DETECTION LIMIT | UN-CERTAINTY |
|----------------------------|-------|-------------|---------------|-------------|------|-------------|-----------|--------|-------------|------|----|-----------------|--------------|
|                            |       |             |               |             |      |             |           |        | LAB         | DATA | QA |                 |              |
| Oxidation Reduction Potent | mV    | 0707        | WL            | 06/06/2007  | N001 | SF          | D         | 125    | F           | #    | -  | -               | -            |
|                            | mV    | 0707        | WL            | 11/14/2007  | N001 | SF          | D         | -34    | F           | #    | -  | -               | -            |
|                            | mV    | 0710        | WL            | 06/07/2007  | N001 | SF          | U         | 148    | F           | #    | -  | -               | -            |
|                            | mV    | 0710        | WL            | 11/14/2007  | N001 | SF          | U         | -10    | F           | #    | -  | -               | -            |
|                            | mV    | 0716        | WL            | 06/05/2007  | N001 | SF          | O         | 20     | F           | #    | -  | -               | -            |
|                            | mV    | 0716        | WL            | 11/14/2007  | N001 | SF          | O         | 68     | F           | #    | -  | -               | -            |
|                            | mV    | 0717        | WL            | 06/05/2007  | N001 | SE          | O         | -122   | F           | #    | -  | -               | -            |
|                            | mV    | 0717        | WL            | 11/14/2007  | N001 | SE          | O         | -151   | F           | #    | -  | -               | -            |
|                            | mV    | 0718        | WL            | 06/07/2007  | N001 | SF          | D         | 43     | F           | #    | -  | -               | -            |
|                            | mV    | 0718        | WL            | 11/13/2007  | N001 | SF          | D         | -117.6 | F           | #    | -  | -               | -            |
|                            | mV    | 0719        | WL            | 06/07/2007  | N001 | SE          | D         | -73    | FQ          | #    | -  | -               | -            |
|                            | mV    | 0719        | WL            | 11/13/2007  | N001 | SE          | D         | -235.2 | FQ          | #    | -  | -               | -            |
|                            | mV    | 0720        | WL            | 06/05/2007  | N001 | SF          | C         | 55     | F           | #    | -  | -               | -            |
|                            | mV    | 0720        | WL            | 11/13/2007  | N001 | SF          | C         | -59    | F           | #    | -  | -               | -            |
|                            | mV    | 0721        | WL            | 06/05/2007  | N001 | SE          | C         | -87    | F           | #    | -  | -               | -            |
|                            | mV    | 0721        | WL            | 11/13/2007  | N001 | SE          | C         | -109   | F           | #    | -  | -               | -            |
|                            | mV    | 0722R       | WL            | 06/07/2007  | N001 | SF          |           | 118    | F           | #    | -  | -               | -            |
|                            | mV    | 0722R       | WL            | 11/13/2007  | N001 | SF          |           | -55    | F           | #    | -  | -               | -            |
|                            | mV    | 0723        | WL            | 06/07/2007  | N001 | SE          | D         | -116   | F           | #    | -  | -               | -            |
|                            | mV    | 0723        | WL            | 11/13/2007  | N001 | SE          | D         | -132.8 | F           | #    | -  | -               | -            |
|                            | mV    | 0729        | WL            | 06/05/2007  | N001 | SF          | D         | -1     | F           | #    | -  | -               | -            |
|                            | mV    | 0729        | WL            | 11/13/2007  | N001 | SF          | D         | 77.6   | F           | #    | -  | -               | -            |
|                            | mV    | 0730        | WL            | 06/05/2007  | N001 | SE          | D         | -134   | FQ          | #    | -  | -               | -            |
|                            | mV    | 0730        | WL            | 11/13/2007  | N001 | SE          | D         | -226   | F           | #    | -  | -               | -            |
|                            | mV    | 0735        | WL            | 06/04/2007  | N001 | SE          | D         | 57     | F           | #    | -  | -               | -            |
|                            | mV    | 0735        | WL            | 11/13/2007  | N001 | SE          | D         | -62    | F           | #    | -  | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
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| PARAMETER                  | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |      |    | DETECTION LIMIT | UN-CERTAINTY |
|----------------------------|-------|-------------|---------------|------------|------|-------------|-----------|--------|-------------|------|----|-----------------|--------------|
|                            |       |             |               | DATE       | ID   |             |           |        | LAB         | DATA | QA |                 |              |
| Oxidation Reduction Potent | mV    | 0784        | WL            | 06/05/2007 | N001 | SF          | U         | -23    | F           | #    | -  | -               | -            |
|                            | mV    | 0784        | WL            | 11/14/2007 | N001 | SF          | U         | -158   | F           | #    | -  | -               | -            |
|                            | mV    | 0788        | WL            | 06/06/2007 | N001 | SF          | C         | -16    | F           | #    | -  | -               | -            |
|                            | mV    | 0788        | WL            | 11/14/2007 | N001 | SF          | C         | -79    | F           | #    | -  | -               | -            |
|                            | mV    | 0789        | WL            | 03/21/2007 | N001 | SF          | D         | 211.0  |             | #    | -  | -               | -            |
|                            | mV    | 0789        | WL            | 06/06/2007 | N001 | SF          | D         | 121    | F           | #    | -  | -               | -            |
|                            | mV    | 0789        | WL            | 11/14/2007 | N001 | SF          | D         | -61    | F           | #    | -  | -               | -            |
|                            | mV    | 0809        | WL            | 06/04/2007 | N001 | SF          |           | 57     | F           | #    | -  | -               | -            |
|                            | mV    | 0809        | WL            | 11/13/2007 | N001 | SF          |           | -23    | F           | #    | -  | -               | -            |
|                            | mV    | 0824        | WL            | 06/06/2007 | N001 | SF          |           | 55     | F           | #    | -  | -               | -            |
|                            | mV    | 0824        | WL            | 11/15/2007 | N001 | SF          |           | 97     | F           | #    | -  | -               | -            |
|                            | mV    | 0826        | WL            | 06/06/2007 | N001 | SF          |           | -65    | F           | #    | -  | -               | -            |
|                            | mV    | 0826        | WL            | 11/14/2007 | N001 | SF          |           | -66    | F           | #    | -  | -               | -            |
| pH                         | s.u.  | 0705        | WL            | 06/06/2007 | N001 | SE          | D         | 8.09   | FQ          | #    | -  | -               | -            |
|                            | s.u.  | 0705        | WL            | 11/14/2007 | N001 | SE          | D         | 8.21   | FQ          | #    | -  | -               | -            |
|                            | s.u.  | 0707        | WL            | 06/06/2007 | N001 | SF          | D         | 7.02   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0707        | WL            | 11/14/2007 | N001 | SF          | D         | 6.92   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0710        | WL            | 06/07/2007 | N001 | SF          | U         | 7.30   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0710        | WL            | 11/14/2007 | N001 | SF          | U         | 7.67   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0716        | WL            | 06/05/2007 | N001 | SF          | O         | 7.13   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0716        | WL            | 11/14/2007 | N001 | SF          | O         | 7.23   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0717        | WL            | 06/05/2007 | N001 | SE          | O         | 7.57   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0717        | WL            | 11/14/2007 | N001 | SE          | O         | 7.71   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0718        | WL            | 06/07/2007 | N001 | SF          | D         | 7.12   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0718        | WL            | 11/13/2007 | N001 | SF          | D         | 7.03   | F           | #    | -  | -               | -            |
|                            | s.u.  | 0719        | WL            | 06/07/2007 | N001 | SE          | D         | 7.72   | FQ          | #    | -  | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |      |    | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|------------|------|-------------|-----------|--------|-------------|------|----|-----------------|--------------|
|           |       |             |               | DATE       | ID   |             |           |        | LAB         | DATA | QA |                 |              |
| pH        | s.u.  | 0719        | WL            | 11/13/2007 | N001 | SE          | D         | 7.73   | FQ          | #    | -  | -               | -            |
|           | s.u.  | 0720        | WL            | 06/05/2007 | N001 | SF          | C         | 7.32   | F           | #    | -  | -               | -            |
|           | s.u.  | 0720        | WL            | 11/13/2007 | N001 | SF          | C         | 7.23   | F           | #    | -  | -               | -            |
|           | s.u.  | 0721        | WL            | 06/05/2007 | N001 | SE          | C         | 8.76   | F           | #    | -  | -               | -            |
|           | s.u.  | 0721        | WL            | 11/13/2007 | N001 | SE          | C         | 8.77   | F           | #    | -  | -               | -            |
|           | s.u.  | 0722R       | WL            | 06/07/2007 | N001 | SF          |           | 6.91   | F           | #    | -  | -               | -            |
|           | s.u.  | 0722R       | WL            | 11/13/2007 | N001 | SF          |           | 6.94   | F           | #    | -  | -               | -            |
|           | s.u.  | 0723        | WL            | 06/07/2007 | N001 | SE          | D         | 7.07   | F           | #    | -  | -               | -            |
|           | s.u.  | 0723        | WL            | 11/13/2007 | N001 | SE          | D         | 6.99   | F           | #    | -  | -               | -            |
|           | s.u.  | 0729        | WL            | 06/05/2007 | N001 | SF          | D         | 7.14   | F           | #    | -  | -               | -            |
|           | s.u.  | 0729        | WL            | 11/13/2007 | N001 | SF          | D         | 7.10   | F           | #    | -  | -               | -            |
|           | s.u.  | 0730        | WL            | 06/05/2007 | N001 | SE          | D         | 7.43   | FQ          | #    | -  | -               | -            |
|           | s.u.  | 0730        | WL            | 11/13/2007 | N001 | SE          | D         | 7.41   | F           | #    | -  | -               | -            |
|           | s.u.  | 0735        | WL            | 06/04/2007 | N001 | SE          | D         | 7.23   | F           | #    | -  | -               | -            |
|           | s.u.  | 0735        | WL            | 11/13/2007 | N001 | SE          | D         | 7.67   | F           | #    | -  | -               | -            |
|           | s.u.  | 0784        | WL            | 06/05/2007 | N001 | SF          | U         | 7.83   | F           | #    | -  | -               | -            |
|           | s.u.  | 0784        | WL            | 11/14/2007 | N001 | SF          | U         | 7.97   | F           | #    | -  | -               | -            |
|           | s.u.  | 0788        | WL            | 06/06/2007 | N001 | SF          | C         | 7.29   | F           | #    | -  | -               | -            |
|           | s.u.  | 0788        | WL            | 11/14/2007 | N001 | SF          | C         | 7.29   | F           | #    | -  | -               | -            |
|           | s.u.  | 0789        | WL            | 03/21/2007 | N001 | SF          | D         | 6.98   | #           | -    | -  | -               | -            |
|           | s.u.  | 0789        | WL            | 06/06/2007 | N001 | SF          | D         | 6.99   | F           | #    | -  | -               | -            |
|           | s.u.  | 0789        | WL            | 11/14/2007 | N001 | SF          | D         | 7.01   | F           | #    | -  | -               | -            |
|           | s.u.  | 0809        | WL            | 06/04/2007 | N001 | SF          |           | 7.59   | F           | #    | -  | -               | -            |
|           | s.u.  | 0809        | WL            | 11/13/2007 | N001 | SF          |           | 7.55   | F           | #    | -  | -               | -            |
|           | s.u.  | 0824        | WL            | 06/06/2007 | N001 | SF          |           | 7.26   | F           | #    | -  | -               | -            |
|           | s.u.  | 0824        | WL            | 11/15/2007 | N001 | SF          |           | 7.20   | F           | #    | -  | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER            | UNITS    | LOCATION ID | LOCATION TYPE | SAMPLE: DATE | ID   | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: LAB | DATA QA | DETECTION LIMIT | UN-CERTAINTY |
|----------------------|----------|-------------|---------------|--------------|------|-------------|-----------|--------|-----------------|---------|-----------------|--------------|
| pH                   | s.u.     | 0826        | WL            | 06/06/2007   | N001 | SF          |           | 7.35   | F               | #       | -               | -            |
|                      | s.u.     | 0826        | WL            | 11/14/2007   | N001 | SF          |           | 7.32   | F               | #       | -               | -            |
| Specific Conductance | umhos/cm | 0705        | WL            | 06/06/2007   | N001 | SE          | D         | 1237   | FQ              | #       | -               | -            |
|                      | umhos/cm | 0705        | WL            | 11/14/2007   | N001 | SE          | D         | 1246   | FQ              | #       | -               | -            |
|                      | umhos/cm | 0707        | WL            | 06/06/2007   | N001 | SF          | D         | 3586   | F               | #       | -               | -            |
|                      | umhos/cm | 0707        | WL            | 11/14/2007   | N001 | SF          | D         | 3182   | F               | #       | -               | -            |
|                      | umhos/cm | 0710        | WL            | 06/07/2007   | N001 | SF          | U         | 556    | F               | #       | -               | -            |
|                      | umhos/cm | 0710        | WL            | 11/14/2007   | N001 | SF          | U         | 534    | F               | #       | -               | -            |
|                      | umhos/cm | 0716        | WL            | 06/05/2007   | N001 | SF          | O         | 1263   | F               | #       | -               | -            |
|                      | umhos/cm | 0716        | WL            | 11/14/2007   | N001 | SF          | O         | 1212   | F               | #       | -               | -            |
|                      | umhos/cm | 0717        | WL            | 06/05/2007   | N001 | SE          | O         | 1892   | F               | #       | -               | -            |
|                      | umhos/cm | 0717        | WL            | 11/14/2007   | N001 | SE          | O         | 1967   | F               | #       | -               | -            |
|                      | umhos/cm | 0718        | WL            | 06/07/2007   | N001 | SF          | D         | 3640   | F               | #       | -               | -            |
|                      | umhos/cm | 0718        | WL            | 11/13/2007   | N001 | SF          | D         | 3600   | F               | #       | -               | -            |
|                      | umhos/cm | 0719        | WL            | 06/07/2007   | N001 | SE          | D         | 1154   | FQ              | #       | -               | -            |
|                      | umhos/cm | 0719        | WL            | 11/13/2007   | N001 | SE          | D         | 1115   | FQ              | #       | -               | -            |
|                      | umhos/cm | 0720        | WL            | 06/05/2007   | N001 | SF          | C         | 722    | F               | #       | -               | -            |
|                      | umhos/cm | 0720        | WL            | 11/13/2007   | N001 | SF          | C         | 710    | F               | #       | -               | -            |
|                      | umhos/cm | 0721        | WL            | 06/05/2007   | N001 | SE          | C         | 881    | F               | #       | -               | -            |
|                      | umhos/cm | 0721        | WL            | 11/13/2007   | N001 | SE          | C         | 901    | F               | #       | -               | -            |
|                      | umhos/cm | 0722R       | WL            | 06/07/2007   | N001 | SF          |           | 1358   | F               | #       | -               | -            |
|                      | umhos/cm | 0722R       | WL            | 11/13/2007   | N001 | SF          |           | 992    | F               | #       | -               | -            |
|                      | umhos/cm | 0723        | WL            | 06/07/2007   | N001 | SE          | D         | 3832   | F               | #       | -               | -            |
|                      | umhos/cm | 0723        | WL            | 11/13/2007   | N001 | SE          | D         | 3841   | F               | #       | -               | -            |
|                      | umhos/cm | 0729        | WL            | 06/05/2007   | N001 | SF          | D         | 830    | F               | #       | -               | -            |
|                      | umhos/cm | 0729        | WL            | 11/13/2007   | N001 | SF          | D         | 809    | F               | #       | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER            | UNITS    | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |      |     | DETECTION LIMIT | UN-CERTAINTY |
|----------------------|----------|-------------|---------------|------------|------|-------------|-----------|--------|-------------|------|-----|-----------------|--------------|
|                      |          |             |               | DATE       | ID   |             |           |        | LAB         | DATA | QA  |                 |              |
| Specific Conductance | umhos/cm | 0730        | WL            | 06/05/2007 | N001 | SE          | D         | 979    | FQ          | #    | -   | -               | -            |
|                      | umhos/cm | 0730        | WL            | 11/13/2007 | N001 | SE          | D         | 974    | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0735        | WL            | 06/04/2007 | N001 | SE          | D         | 1475   | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0735        | WL            | 11/13/2007 | N001 | SE          | D         | 1518   | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0784        | WL            | 06/05/2007 | N001 | SF          | U         | 4790   | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0784        | WL            | 11/14/2007 | N001 | SF          | U         | 4617   | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0788        | WL            | 06/06/2007 | N001 | SF          | C         | 1863   | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0788        | WL            | 11/14/2007 | N001 | SF          | C         | 1787   | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0789        | WL            | 03/21/2007 | N001 | SF          | D         | 6636   |             | #    | -   | -               | -            |
|                      | umhos/cm | 0789        | WL            | 06/06/2007 | N001 | SF          | D         | 6351   | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0789        | WL            | 11/14/2007 | N001 | SF          | D         | 6210   | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0809        | WL            | 06/04/2007 | N001 | SF          |           | 450    | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0809        | WL            | 11/13/2007 | N001 | SF          |           | 773    | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0824        | WL            | 06/06/2007 | N001 | SF          |           | 758    | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0824        | WL            | 11/15/2007 | N001 | SF          |           | 870    | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0826        | WL            | 06/06/2007 | N001 | SF          |           | 1408   | F           | #    | -   | -               | -            |
|                      | umhos/cm | 0826        | WL            | 11/14/2007 | N001 | SF          |           | 1422   | F           | #    | -   | -               | -            |
| Sulfate              | mg/L     | 0705        | WL            | 06/06/2007 | N001 | SE          | D         | 440    | FQ          | #    | 10  | -               | -            |
|                      | mg/L     | 0705        | WL            | 11/14/2007 | N001 | SE          | D         | 470    | FQ          | #    | 5   | -               | -            |
|                      | mg/L     | 0707        | WL            | 06/06/2007 | N001 | SF          | D         | 2000   | F           | #    | 25  | -               | -            |
|                      | mg/L     | 0707        | WL            | 11/14/2007 | N001 | SF          | D         | 1700   | F           | #    | 10  | -               | -            |
|                      | mg/L     | 0710        | WL            | 06/07/2007 | N001 | SF          | U         | 87     | F           | #    | 5   | -               | -            |
|                      | mg/L     | 0710        | WL            | 11/14/2007 | N001 | SF          | U         | 92     | F           | #    | 2.5 | -               | -            |
|                      | mg/L     | 0716        | WL            | 06/05/2007 | N001 | SF          | O         | 370    | F           | #    | 10  | -               | -            |
|                      | mg/L     | 0716        | WL            | 11/14/2007 | N001 | SF          | O         | 370    | F           | #    | 5   | -               | -            |
|                      | mg/L     | 0717        | WL            | 06/05/2007 | N001 | SE          | O         | 720    | F           | #    | 10  | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE: DATE | ID   | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: LAB | DATA | QA  | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|--------------|------|-------------|-----------|--------|-----------------|------|-----|-----------------|--------------|
| Sulfate   | mg/L  | 0717        | WL            | 11/14/2007   | N001 | SE          | O         | 780    | F               | #    | 10  | -               |              |
|           | mg/L  | 0718        | WL            | 06/07/2007   | N001 | SF          | D         | 1700   | F               | #    | 25  | -               |              |
|           | mg/L  | 0718        | WL            | 11/13/2007   | N001 | SF          | D         | 1800   | F               | #    | 25  | -               |              |
|           | mg/L  | 0719        | WL            | 06/07/2007   | N001 | SE          | D         | 410    | FQ              | #    | 10  | -               |              |
|           | mg/L  | 0719        | WL            | 11/13/2007   | N001 | SE          | D         | 420    | FQ              | #    | 5   | -               |              |
|           | mg/L  | 0720        | WL            | 06/05/2007   | N001 | SF          | C         | 130    | F               | #    | 5   | -               |              |
|           | mg/L  | 0720        | WL            | 11/13/2007   | N001 | SF          | C         | 140    | F               | #    | 2.5 | -               |              |
|           | mg/L  | 0721        | WL            | 06/05/2007   | N001 | SE          | C         | 280    | F               | #    | 5   | -               |              |
|           | mg/L  | 0721        | WL            | 11/13/2007   | N001 | SE          | C         | 300    | F               | #    | 2.5 | -               |              |
|           | mg/L  | 0722R       | WL            | 06/07/2007   | N001 | SF          |           | 520    | F               | #    | 10  | -               |              |
|           | mg/L  | 0722R       | WL            | 11/13/2007   | N001 | SF          |           | 230    | F               | #    | 2.5 | -               |              |
|           | mg/L  | 0723        | WL            | 06/07/2007   | N001 | SE          | D         | 1800   | F               | #    | 25  | -               |              |
|           | mg/L  | 0723        | WL            | 11/13/2007   | N001 | SE          | D         | 1900   | F               | #    | 10  | -               |              |
|           | mg/L  | 0729        | WL            | 06/05/2007   | N001 | SF          | D         | 110    | F               | #    | 5   | -               |              |
|           | mg/L  | 0729        | WL            | 11/13/2007   | N001 | SF          | D         | 110    | F               | #    | 2.5 | -               |              |
|           | mg/L  | 0730        | WL            | 06/05/2007   | N001 | SE          | D         | 190    | FQ              | #    | 5   | -               |              |
|           | mg/L  | 0730        | WL            | 11/13/2007   | N001 | SE          | D         | 190    | F               | #    | 2.5 | -               |              |
|           | mg/L  | 0735        | WL            | 06/04/2007   | N001 | SE          | D         | 560    | F               | #    | 10  | -               |              |
|           | mg/L  | 0735        | WL            | 11/13/2007   | N001 | SE          | D         | 620    | F               | #    | 5   | -               |              |
|           | mg/L  | 0784        | WL            | 06/05/2007   | N001 | SF          | U         | 2200   | F               | #    | 25  | -               |              |
|           | mg/L  | 0784        | WL            | 11/14/2007   | N001 | SF          | U         | 2300   | F               | #    | 25  | -               |              |
|           | mg/L  | 0788        | WL            | 06/06/2007   | N001 | SF          | C         | 630    | F               | #    | 10  | -               |              |
|           | mg/L  | 0788        | WL            | 11/14/2007   | N001 | SF          | C         | 620    | F               | #    | 10  | -               |              |
|           | mg/L  | 0789        | WL            | 06/06/2007   | N001 | SF          | D         | 3500   | F               | #    | 50  | -               |              |
|           | mg/L  | 0789        | WL            | 11/14/2007   | N001 | SF          | D         | 3900   | F               | #    | 25  | -               |              |
|           | mg/L  | 0789        | WL            | 11/14/2007   | N002 | SF          | D         | 3800   | F               | #    | 25  | -               |              |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
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| PARAMETER   | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |      |    | DETECTION LIMIT | UN-CERTAINTY |
|-------------|-------|-------------|---------------|------------|------|-------------|-----------|--------|-------------|------|----|-----------------|--------------|
|             |       |             |               | DATE       | ID   |             |           |        | LAB         | DATA | QA |                 |              |
| Sulfate     | mg/L  | 0809        | WL            | 06/04/2007 | N001 | SF          |           | 110    | F           | #    |    | 2.5             | -            |
|             | mg/L  | 0809        | WL            | 11/13/2007 | N001 | SF          |           | 250    | F           | #    |    | 2.5             | -            |
|             | mg/L  | 0824        | WL            | 06/06/2007 | N001 | SF          |           | 110    | F           | #    |    | 5               | -            |
|             | mg/L  | 0824        | WL            | 11/15/2007 | N001 | SF          |           | 130    | F           | #    |    | 2.5             | -            |
|             | mg/L  | 0826        | WL            | 06/06/2007 | N001 | SF          |           | 380    | F           | #    |    | 10              | -            |
|             | mg/L  | 0826        | WL            | 06/06/2007 | N002 | SF          |           | 380    | F           | #    |    | 10              | -            |
|             | mg/L  | 0826        | WL            | 11/14/2007 | N001 | SF          |           | 430    | F           | #    |    | 5               | -            |
| Temperature | C     | 0705        | WL            | 06/06/2007 | N001 | SE          | D         | 11.12  | FQ          | #    |    | -               | -            |
|             | C     | 0705        | WL            | 11/14/2007 | N001 | SE          | D         | 9.30   | FQ          | #    |    | -               | -            |
|             | C     | 0707        | WL            | 06/06/2007 | N001 | SF          | D         | 10.31  | F           | #    |    | -               | -            |
|             | C     | 0707        | WL            | 11/14/2007 | N001 | SF          | D         | 10.13  | F           | #    |    | -               | -            |
|             | C     | 0710        | WL            | 06/07/2007 | N001 | SF          | U         | 7.38   | F           | #    |    | -               | -            |
|             | C     | 0710        | WL            | 11/14/2007 | N001 | SF          | U         | 11.9   | F           | #    |    | -               | -            |
|             | C     | 0716        | WL            | 06/05/2007 | N001 | SF          | O         | 12.73  | F           | #    |    | -               | -            |
|             | C     | 0716        | WL            | 11/14/2007 | N001 | SF          | O         | 12.4   | F           | #    |    | -               | -            |
|             | C     | 0717        | WL            | 06/05/2007 | N001 | SE          | O         | 12.13  | F           | #    |    | -               | -            |
|             | C     | 0717        | WL            | 11/14/2007 | N001 | SE          | O         | 11.6   | F           | #    |    | -               | -            |
|             | C     | 0718        | WL            | 06/07/2007 | N001 | SF          | D         | 10.05  | F           | #    |    | -               | -            |
|             | C     | 0718        | WL            | 11/13/2007 | N001 | SF          | D         | 14.74  | F           | #    |    | -               | -            |
|             | C     | 0719        | WL            | 06/07/2007 | N001 | SE          | D         | 11.10  | FQ          | #    |    | -               | -            |
|             | C     | 0719        | WL            | 11/13/2007 | N001 | SE          | D         | 12.99  | FQ          | #    |    | -               | -            |
|             | C     | 0720        | WL            | 06/05/2007 | N001 | SF          | C         | 9.26   | F           | #    |    | -               | -            |
|             | C     | 0720        | WL            | 11/13/2007 | N001 | SF          | C         | 12.81  | F           | #    |    | -               | -            |
|             | C     | 0721        | WL            | 06/05/2007 | N001 | SE          | C         | 10.61  | F           | #    |    | -               | -            |
|             | C     | 0721        | WL            | 11/13/2007 | N001 | SE          | C         | 11.23  | F           | #    |    | -               | -            |
|             | C     | 0722R       | WL            | 06/07/2007 | N001 | SF          |           | 11.12  | F           | #    |    | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER   | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE DATE | ID   | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |      |    | UN-CERTAINTY |
|-------------|-------|-------------|---------------|-------------|------|-------------|-----------|--------|-------------|------|----|--------------|
|             |       |             |               |             |      |             |           |        | LAB         | DATA | QA |              |
| Temperature | C     | 0722R       | WL            | 11/13/2007  | N001 | SF          | D         | 15.13  | F           | #    | -  | -            |
|             | C     | 0723        | WL            | 06/07/2007  | N001 | SE          | D         | 11.55  | F           | #    | -  | -            |
|             | C     | 0723        | WL            | 11/13/2007  | N001 | SE          | D         | 12.78  | F           | #    | -  | -            |
|             | C     | 0729        | WL            | 06/05/2007  | N001 | SF          | D         | 11.69  | F           | #    | -  | -            |
|             | C     | 0729        | WL            | 11/13/2007  | N001 | SF          | D         | 14.03  | F           | #    | -  | -            |
|             | C     | 0730        | WL            | 06/05/2007  | N001 | SE          | D         | 13.11  | FQ          | #    | -  | -            |
|             | C     | 0730        | WL            | 11/13/2007  | N001 | SE          | D         | 13.76  | F           | #    | -  | -            |
|             | C     | 0735        | WL            | 06/04/2007  | N001 | SE          | D         | 11.03  | F           | #    | -  | -            |
|             | C     | 0735        | WL            | 11/13/2007  | N001 | SE          | D         | 11.63  | F           | #    | -  | -            |
|             | C     | 0784        | WL            | 06/05/2007  | N001 | SF          | U         | 13.24  | F           | #    | -  | -            |
|             | C     | 0784        | WL            | 11/14/2007  | N001 | SF          | U         | 13.7   | F           | #    | -  | -            |
|             | C     | 0788        | WL            | 06/06/2007  | N001 | SF          | C         | 9.36   | F           | #    | -  | -            |
|             | C     | 0788        | WL            | 11/14/2007  | N001 | SF          | C         | 11.18  | F           | #    | -  | -            |
|             | C     | 0789        | WL            | 03/21/2007  | N001 | SF          | D         | 8.07   |             | #    | -  | -            |
|             | C     | 0789        | WL            | 06/06/2007  | N001 | SF          | D         | 9.47   | F           | #    | -  | -            |
|             | C     | 0789        | WL            | 11/14/2007  | N001 | SF          | D         | 11.12  | F           | #    | -  | -            |
|             | C     | 0809        | WL            | 06/04/2007  | N001 | SF          |           | 11.53  | F           | #    | -  | -            |
|             | C     | 0809        | WL            | 11/13/2007  | N001 | SF          |           | 13.62  | F           | #    | -  | -            |
|             | C     | 0824        | WL            | 06/06/2007  | N001 | SF          |           | 9.45   | F           | #    | -  | -            |
|             | C     | 0824        | WL            | 11/15/2007  | N001 | SF          |           | 10.69  | F           | #    | -  | -            |
|             | C     | 0826        | WL            | 06/06/2007  | N001 | SF          |           | 9.00   | F           | #    | -  | -            |
|             | C     | 0826        | WL            | 11/14/2007  | N001 | SF          |           | 10.30  | F           | #    | -  | -            |
| Turbidity   | NTU   | 0705        | WL            | 06/06/2007  | N001 | SE          | D         | 1.33   | FQ          | #    | -  | -            |
|             | NTU   | 0705        | WL            | 11/14/2007  | N001 | SE          | D         | 1.26   | FQ          | #    | -  | -            |
|             | NTU   | 0707        | WL            | 06/06/2007  | N001 | SF          | D         | 1.88   | F           | #    | -  | -            |
|             | NTU   | 0710        | WL            | 06/07/2007  | N001 | SF          | U         | 1.50   | F           | #    | -  | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
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| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE DATE | ID   | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |         | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|-------------|------|-------------|-----------|--------|-------------|---------|-----------------|--------------|
|           |       |             |               |             |      |             |           |        | LAB         | DATA QA |                 |              |
| Turbidity | NTU   | 0710        | WL            | 11/14/2007  | N001 | SF          | U         | 0.92   | F           | #       | -               | -            |
|           | NTU   | 0716        | WL            | 06/05/2007  | N001 | SF          | O         | 1.75   | F           | #       | -               | -            |
|           | NTU   | 0716        | WL            | 11/14/2007  | N001 | SF          | O         | 2.58   | F           | #       | -               | -            |
|           | NTU   | 0717        | WL            | 06/05/2007  | N001 | SE          | O         | 1.18   | F           | #       | -               | -            |
|           | NTU   | 0717        | WL            | 11/14/2007  | N001 | SE          | O         | 1.14   | F           | #       | -               | -            |
|           | NTU   | 0718        | WL            | 06/07/2007  | N001 | SF          | D         | 6.90   | F           | #       | -               | -            |
|           | NTU   | 0718        | WL            | 11/13/2007  | N001 | SF          | D         | 2.22   | F           | #       | -               | -            |
|           | NTU   | 0719        | WL            | 06/07/2007  | N001 | SE          | D         | 3.95   | FQ          | #       | -               | -            |
|           | NTU   | 0719        | WL            | 11/13/2007  | N001 | SE          | D         | 1.36   | FQ          | #       | -               | -            |
|           | NTU   | 0720        | WL            | 06/05/2007  | N001 | SF          | C         | 2.43   | F           | #       | -               | -            |
|           | NTU   | 0720        | WL            | 11/13/2007  | N001 | SF          | C         | 1.14   | F           | #       | -               | -            |
|           | NTU   | 0721        | WL            | 06/05/2007  | N001 | SE          | C         | 3.96   | F           | #       | -               | -            |
|           | NTU   | 0721        | WL            | 11/13/2007  | N001 | SE          | C         | 2.54   | F           | #       | -               | -            |
|           | NTU   | 0722R       | WL            | 06/07/2007  | N001 | SF          |           | 2.08   | F           | #       | -               | -            |
|           | NTU   | 0722R       | WL            | 11/13/2007  | N001 | SF          |           | 0.55   | F           | #       | -               | -            |
|           | NTU   | 0723        | WL            | 06/07/2007  | N001 | SE          | D         | 0.98   | F           | #       | -               | -            |
|           | NTU   | 0723        | WL            | 11/13/2007  | N001 | SE          | D         | 0.82   | F           | #       | -               | -            |
|           | NTU   | 0729        | WL            | 06/05/2007  | N001 | SF          | D         | 1.41   | F           | #       | -               | -            |
|           | NTU   | 0729        | WL            | 11/13/2007  | N001 | SF          | D         | 2.00   | F           | #       | -               | -            |
|           | NTU   | 0730        | WL            | 06/05/2007  | N001 | SE          | D         | 9.31   | FQ          | #       | -               | -            |
|           | NTU   | 0730        | WL            | 11/13/2007  | N001 | SE          | D         | 5.24   | F           | #       | -               | -            |
|           | NTU   | 0735        | WL            | 06/04/2007  | N001 | SE          | D         | 7.09   | F           | #       | -               | -            |
|           | NTU   | 0735        | WL            | 11/13/2007  | N001 | SE          | D         | 3.15   | F           | #       | -               | -            |
|           | NTU   | 0784        | WL            | 06/05/2007  | N001 | SF          | U         | 1.62   | F           | #       | -               | -            |
|           | NTU   | 0784        | WL            | 11/14/2007  | N001 | SF          | U         | 2.00   | F           | #       | -               | -            |
|           | NTU   | 0788        | WL            | 06/06/2007  | N001 | SF          | C         | 2.04   | F           | #       | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT  | QUALIFIERS: |      |         | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|------------|------|-------------|-----------|---------|-------------|------|---------|-----------------|--------------|
|           |       |             |               | DATE       | ID   |             |           |         | LAB         | DATA | QA      |                 |              |
| Turbidity | NTU   | 0788        | WL            | 11/14/2007 | N001 | SF          | C         | 4.30    | F           | #    | -       | -               | -            |
|           | NTU   | 0789        | WL            | 03/21/2007 | N001 | SF          | D         | 9.54    |             | #    | -       | -               | -            |
|           | NTU   | 0789        | WL            | 06/06/2007 | N001 | SF          | D         | 9.33    | F           | #    | -       | -               | -            |
|           | NTU   | 0789        | WL            | 11/14/2007 | N001 | SF          | D         | 6.64    | F           | #    | -       | -               | -            |
|           | NTU   | 0809        | WL            | 06/04/2007 | N001 | SF          |           | 1.25    | F           | #    | -       | -               | -            |
|           | NTU   | 0809        | WL            | 11/13/2007 | N001 | SF          |           | 2.24    | F           | #    | -       | -               | -            |
|           | NTU   | 0824        | WL            | 06/06/2007 | N001 | SF          |           | 1.06    | F           | #    | -       | -               | -            |
|           | NTU   | 0824        | WL            | 11/15/2007 | N001 | SF          |           | 0.73    | F           | #    | -       | -               | -            |
|           | NTU   | 0826        | WL            | 06/06/2007 | N001 | SF          |           | 2.91    | F           | #    | -       | -               | -            |
|           | NTU   | 0826        | WL            | 11/14/2007 | N001 | SF          |           | 1.93    | F           | #    | -       | -               | -            |
| Uranium   | mg/L  | 0705        | WL            | 06/06/2007 | N001 | SE          | D         | 0.00021 | UFQ         | #    | 4.6E-06 | -               | -            |
|           | mg/L  | 0705        | WL            | 11/14/2007 | N001 | SE          | D         | 0.00017 | FQ          | #    | 1.2E-05 | -               | -            |
|           | mg/L  | 0707        | WL            | 06/06/2007 | N001 | SF          | D         | 0.670   | F           | #    | 4.6E-05 | -               | -            |
|           | mg/L  | 0707        | WL            | 11/14/2007 | N001 | SF          | D         | 0.630   | F           | #    | 0.00012 | -               | -            |
|           | mg/L  | 0710        | WL            | 06/07/2007 | N001 | SF          | U         | 0.0033  | F           | #    | 4.6E-06 | -               | -            |
|           | mg/L  | 0710        | WL            | 11/14/2007 | N001 | SF          | U         | 0.0027  | F           | #    | 1.2E-05 | -               | -            |
|           | mg/L  | 0716        | WL            | 06/05/2007 | N001 | SF          | O         | 0.230   | F           | #    | 2.3E-05 | -               | -            |
|           | mg/L  | 0716        | WL            | 11/14/2007 | N001 | SF          | O         | 0.270   | F           | #    | 5.8E-05 | -               | -            |
|           | mg/L  | 0717        | WL            | 06/05/2007 | N001 | SE          | O         | 0.00002 | B           | UF   | #       | 4.6E-06         | -            |
|           | mg/L  | 0717        | WL            | 11/14/2007 | N001 | SE          | O         | 0.00006 | B           | UF   | #       | 1.2E-05         | -            |
|           | mg/L  | 0718        | WL            | 06/07/2007 | N001 | SF          | D         | 0.200   | F           | #    | 9.3E-06 | -               | -            |
|           | mg/L  | 0718        | WL            | 11/13/2007 | N001 | SF          | D         | 0.210   | F           | #    | 5.8E-05 | -               | -            |
|           | mg/L  | 0719        | WL            | 06/07/2007 | N001 | SE          | D         | 0.001   | FQ          | #    | 4.6E-06 | -               | -            |
|           | mg/L  | 0719        | WL            | 11/13/2007 | N001 | SE          | D         | 0.00075 | FQ          | #    | 1.2E-05 | -               | -            |
|           | mg/L  | 0720        | WL            | 06/05/2007 | N001 | SF          | C         | 0.0052  | F           | #    | 4.6E-06 | -               | -            |
|           | mg/L  | 0720        | WL            | 11/13/2007 | N001 | SF          | C         | 0.0045  | F           | #    | 1.2E-05 | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT  | QUALIFIERS: |      |    | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|------------|------|-------------|-----------|---------|-------------|------|----|-----------------|--------------|
|           |       |             |               | DATE       | ID   |             |           |         | LAB         | DATA | QA |                 |              |
| Uranium   | mg/L  | 0721        | WL            | 06/05/2007 | N001 | SE          | C         | 0.00008 | B           | UF   | #  | 4.6E-06         | -            |
|           | mg/L  | 0721        | WL            | 11/13/2007 | N001 | SE          | C         | 0.0001  |             | UF   | #  | 1.2E-05         | -            |
|           | mg/L  | 0722R       | WL            | 06/07/2007 | N001 | SF          |           | 0.400   |             | F    | #  | 2.3E-05         | -            |
|           | mg/L  | 0722R       | WL            | 11/13/2007 | N001 | SF          |           | 0.250   |             | F    | #  | 5.8E-05         | -            |
|           | mg/L  | 0723        | WL            | 06/07/2007 | N001 | SE          | D         | 0.00002 | B           | UF   | #  | 4.6E-06         | -            |
|           | mg/L  | 0723        | WL            | 11/13/2007 | N001 | SE          | D         | 0.00005 | B           | UF   | #  | 1.2E-05         | -            |
|           | mg/L  | 0729        | WL            | 06/05/2007 | N001 | SF          | D         | 0.013   |             | F    | #  | 4.6E-06         | -            |
|           | mg/L  | 0729        | WL            | 11/13/2007 | N001 | SF          | D         | 0.0094  |             | F    | #  | 1.2E-05         | -            |
|           | mg/L  | 0730        | WL            | 06/05/2007 | N001 | SE          | D         | 0.0067  |             | FQ   | #  | 4.6E-06         | -            |
|           | mg/L  | 0730        | WL            | 11/13/2007 | N001 | SE          | D         | 0.0042  |             | F    | #  | 1.2E-05         | -            |
|           | mg/L  | 0735        | WL            | 06/04/2007 | N001 | SE          | D         | 0.00034 |             | F    | #  | 4.6E-06         | -            |
|           | mg/L  | 0735        | WL            | 11/13/2007 | N001 | SE          | D         | 0.00027 |             | F    | #  | 1.2E-05         | -            |
|           | mg/L  | 0784        | WL            | 06/05/2007 | N001 | SF          | U         | 0.0055  |             | F    | #  | 4.6E-06         | -            |
|           | mg/L  | 0784        | WL            | 11/14/2007 | N001 | SF          | U         | 0.0056  |             | F    | #  | 1.2E-05         | -            |
|           | mg/L  | 0788        | WL            | 06/06/2007 | N001 | SF          | C         | 0.032   |             | F    | #  | 4.6E-06         | -            |
|           | mg/L  | 0788        | WL            | 11/14/2007 | N001 | SF          | C         | 0.029   |             | F    | #  | 1.2E-05         | -            |
|           | mg/L  | 0789        | WL            | 03/21/2007 | N001 | SF          | D         | 1.600   |             |      | #  | 0.00045         | -            |
|           | mg/L  | 0789        | WL            | 06/06/2007 | N001 | SF          | D         | 1.600   |             | F    | #  | 9.3E-05         | -            |
|           | mg/L  | 0789        | WL            | 11/14/2007 | N001 | SF          | D         | 1.400   |             | F    | #  | 0.00023         | -            |
|           | mg/L  | 0789        | WL            | 11/14/2007 | N002 | SF          | D         | 1.400   |             | F    | #  | 0.00023         | -            |
|           | mg/L  | 0809        | WL            | 06/04/2007 | N001 | SF          |           | 0.0013  |             | F    | #  | 4.6E-06         | -            |
|           | mg/L  | 0809        | WL            | 11/13/2007 | N001 | SF          |           | 0.0045  |             | F    | #  | 1.2E-05         | -            |
|           | mg/L  | 0824        | WL            | 06/06/2007 | N001 | SF          |           | 0.015   |             | F    | #  | 4.6E-06         | -            |
|           | mg/L  | 0824        | WL            | 11/15/2007 | N001 | SF          |           | 0.016   |             | F    | #  | 1.2E-05         | -            |
|           | mg/L  | 0826        | WL            | 06/06/2007 | N001 | SF          |           | 0.026   |             | F    | #  | 4.6E-06         | -            |
|           | mg/L  | 0826        | WL            | 06/06/2007 | N002 | SF          |           | 0.026   |             | F    | #  | 4.6E-06         | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE: DATE | SAMPLE: ID | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: LAB | DATA QA | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|--------------|------------|-------------|-----------|--------|-----------------|---------|-----------------|--------------|
| Uranium   | mg/L  | 0826        | WL            | 11/14/2007   | N001       | SF          |           | 0.029  | F               | #       | 1.2E-05         | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 2:20 pm

| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE: DATE | ZONE ID | FLOW COMPL. | RESULT | QUALIFIERS: LAB DATA QA | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|--------------|---------|-------------|--------|-------------------------|-----------------|--------------|
|-----------|-------|-------------|---------------|--------------|---------|-------------|--------|-------------------------|-----------------|--------------|

RECORDS: SELECTED FROM USEE200 WHERE site\_code='RVT01' AND location\_code in('0705','0707','0710','0716','0717','0718','0719','0720','0721','0722R','0723','0729','0730','0735','0784','0788','0789','0809','0824','0826') AND quality\_assurance = 'TRUE AND (data\_validation\_qualifiers IS NULL OR data\_validation\_qualifiers NOT LIKE '%N%' AND data\_validation\_qualifiers NOT LIKE '%R%' AND data\_validation\_qualifiers NOT LIKE '%X%') AND DATE\_SAMPLED between #1/1/2007# and #12/31/2007#'

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: WL WELL

ZONES OF COMPLETION:

|    |                        |    |               |   |         |   |            |
|----|------------------------|----|---------------|---|---------|---|------------|
| SE | SEMICONFINED SANDSTONE | SF | SURFICIAL     |   |         |   |            |
| C  | CROSS GRADIENT         | D  | DOWN GRADIENT | O | ON-SITE | U | UPGRADIENT |

LAB QUALIFIERS:

- \* Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- |  |  |  |
|--|--|--|
| F Low flow sampling method used.                     | G Possible grout contamination, pH > 9.  | J Estimated value.                             |
| L Less than 3 bore volumes purged prior to sampling. | N Presumptive evidence that analyte is present. The analyte is "tentatively identified". | Q Qualitative result due to sampling technique |
| R Unusable result.                                   | U Parameter analyzed for but was not detected.   | X Location is undefined.                       |

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

**Appendix B**

**Water Level Data**

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STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/26/2008 9:25 am

| LOCATION CODE | FLOW CODE | TOP OF CASING ELEVATION (FT) | MEASUREMENT |       | DEPTH FROM TOP OF CASING (FT) | WATER ELEVATION (FT) | WATER LEVEL FLAG |
|---------------|-----------|------------------------------|-------------|-------|-------------------------------|----------------------|------------------|
|               |           |                              | DATE        | TIME  |                               |                      |                  |
| 0101          | O         | 4946.58                      | 06/05/2007  | 11:28 | 10.38                         | 4936.20              |                  |
|               |           | 4946.58                      | 11/15/2007  |       | 11.15                         | 4935.43              |                  |
| 0110          | O         | 4946.44                      | 06/05/2007  | 11:25 | 10.53                         | 4935.91              |                  |
| 0111          | O         | 4946.87                      | 06/05/2007  | 11:30 | 8.59                          | 4938.28              |                  |
|               |           | 4946.87                      | 11/15/2007  |       | 10.93                         | 4935.94              |                  |
| 0700          | U         | 4951.38                      | 06/05/2007  | 11:04 | 6.51                          | 4944.87              |                  |
|               |           | 4951.38                      | 11/15/2007  |       | 6.37                          | 4945.01              |                  |
| 0702          | D         | 4931.00                      | 11/14/2007  | 10:16 | 6.84                          | 4924.16              |                  |
| 0705          | D         | 4930.80                      | 06/06/2007  | 15:55 | 6.00                          | 4924.80              |                  |
|               |           | 4930.80                      | 11/14/2007  |       | 6.94                          | 4923.86              |                  |
| 0707          | D         | 4931.00                      | 06/06/2007  | 15:23 | 5.36                          | 4925.64              |                  |
|               |           | 4931.00                      | 11/14/2007  |       | 5.97                          | 4925.03              |                  |
| 0709          | D         | 4930.70                      | 06/05/2007  | 14:28 | 3.00                          | 4927.70              |                  |
|               |           | 4930.70                      | 11/14/2007  | 10:15 | 3.05                          | 4927.65              |                  |
| 0710          | U         | 4947.90                      | 06/07/2007  | 08:52 | 4.23                          | 4943.67              |                  |
|               |           | 4947.90                      | 11/14/2007  |       | 6.78                          | 4941.12              |                  |
| 0716          | O         | 4939.12                      | 06/05/2007  | 14:37 | 8.31                          | 4930.81              |                  |
|               |           | 4939.12                      | 11/14/2007  |       | 9.42                          | 4929.70              |                  |
| 0717          | O         | 4938.80                      | 06/05/2007  | 14:13 | 7.75                          | 4931.05              |                  |
|               |           | 4938.80                      | 11/14/2007  |       | 9.10                          | 4929.70              |                  |
| 0718          | D         | 4937.60                      | 06/07/2007  | 14:00 | 8.00                          | 4929.60              |                  |
|               |           | 4937.60                      | 11/13/2007  |       | 8.71                          | 4928.89              |                  |
| 0719          | D         | 4937.55                      | 06/07/2007  | 14:30 | 7.51                          | 4930.04              |                  |
|               |           | 4937.55                      | 11/13/2007  |       | 8.29                          | 4929.26              |                  |
| 0720          | C         | 4940.46                      | 06/05/2007  | 09:15 | 5.14                          | 4935.32              |                  |
|               |           | 4940.46                      | 11/13/2007  | 16:03 | 5.31                          | 4935.15              |                  |
| 0721          | C         | 4940.47                      | 06/05/2007  | 09:40 | 7.86                          | 4932.61              |                  |
|               |           | 4940.47                      | 11/13/2007  |       | 8.33                          | 4932.14              |                  |
| 0722R         |           | 4937.06                      | 06/07/2007  | 14:58 | 8.27                          | 4928.79              |                  |
|               |           | 4937.06                      | 11/13/2007  |       | 9.54                          | 4927.52              |                  |
| 0723          | D         | 4936.01                      | 06/07/2007  | 15:21 | 7.08                          | 4928.93              |                  |
|               |           | 4936.01                      | 11/13/2007  |       | 8.30                          | 4927.71              |                  |
| 0724          | U         | 4941.36                      | 06/05/2007  | 13:20 | 7.04                          | 4934.32              |                  |

STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/26/2008 9:25 am

| LOCATION CODE | FLOW CODE | TOP OF CASING ELEVATION (FT) | MEASUREMENT |       | DEPTH FROM TOP OF CASING (FT) | WATER ELEVATION (FT) | WATER LEVEL FLAG |
|---------------|-----------|------------------------------|-------------|-------|-------------------------------|----------------------|------------------|
|               |           |                              | DATE        | TIME  |                               |                      |                  |
| 0724          | U         | 4941.36                      | 11/15/2007  |       | 8.92                          | 4932.44              |                  |
| 0725          | U         | 4941.66                      | 06/05/2007  | 13:18 | 7.19                          | 4934.47              |                  |
|               |           | 4941.66                      | 11/15/2007  |       | 9.23                          | 4932.43              |                  |
| 0726          | U         | 4942.00                      | 06/05/2007  | 13:16 | 5.49                          | 4936.51              |                  |
|               |           | 4942.00                      | 11/15/2007  |       | 7.82                          | 4934.18              |                  |
| 0727          | U         | 4951.69                      | 06/05/2007  | 10:46 | 7.03                          | 4944.66              |                  |
|               |           | 4951.69                      | 11/15/2007  |       | 11.38                         | 4940.31              |                  |
| 0728          | U         | 4946.01                      | 06/05/2007  | 11:13 | 5.80                          | 4940.21              |                  |
|               |           | 4946.01                      | 11/14/2007  |       | 9.89                          | 4936.12              |                  |
| 0729          | D         | 4932.75                      | 06/05/2007  | 17:02 | 5.91                          | 4926.84              |                  |
|               |           | 4932.75                      | 11/13/2007  |       | 7.21                          | 4925.54              |                  |
| 0730          | D         | 4933.08                      | 06/05/2007  | 16:32 | 6.66                          | 4926.42              |                  |
|               |           | 4933.08                      | 11/13/2007  |       | 7.18                          | 4925.90              |                  |
| 0732          | U         | 4945.07                      | 06/05/2007  | 11:35 | 8.59                          | 4936.48              |                  |
|               |           | 4945.07                      | 11/14/2007  |       | 8.90                          | 4936.17              |                  |
| 0733          | U         | 4946.76                      | 06/05/2007  | 14:50 | 5.77                          | 4940.99              |                  |
|               |           | 4946.76                      | 11/14/2007  | 16:08 | 7.77                          | 4938.99              |                  |
| 0734          | U         | 4946.08                      | 06/05/2007  | 14:52 | 6.93                          | 4939.15              |                  |
|               |           | 4946.08                      | 11/14/2007  | 16:05 | 8.80                          | 4937.28              |                  |
| 0735          | D         | 4934.16                      | 06/04/2007  | 17:18 | 9.40                          | 4924.76              |                  |
|               |           | 4934.16                      | 06/05/2007  | 13:40 | 9.34                          | 4924.82              |                  |
|               |           | 4934.16                      | 11/13/2007  |       | 10.35                         | 4923.81              |                  |
| 0736          | U         | 4946.00                      | 06/05/2007  | 11:51 | 6.99                          | 4939.01              |                  |
|               |           | 4946.00                      | 11/14/2007  | 16:52 | 7.72                          | 4938.28              |                  |
| 0784          | U         | 4945.45                      | 06/05/2007  | 13:20 | 7.37                          | 4938.08              |                  |
|               |           | 4945.45                      | 11/14/2007  |       | 7.49                          | 4937.96              |                  |
| 0788          | C         | 4935.09                      | 06/06/2007  | 09:28 | 8.40                          | 4926.69              |                  |
|               |           | 4935.09                      | 11/14/2007  |       | 9.44                          | 4925.65              |                  |
| 0789          | D         | 4933.66                      | 03/21/2007  | 13:43 | 9.37                          | 4924.29              |                  |
|               |           | 4933.66                      | 06/06/2007  | 17:43 | 8.08                          | 4925.58              |                  |
|               |           | 4933.66                      | 11/14/2007  |       | 9.61                          | 4924.05              |                  |
| 0809          |           | 4932.09                      | 06/04/2007  | 17:57 | 7.09                          | 4925.00              |                  |
|               |           | 4932.09                      | 11/13/2007  |       | 8.02                          | 4924.07              |                  |
| 0824          |           | 4928.27                      | 06/06/2007  | 11:18 | 5.88                          | 4922.39              |                  |

STATIC WATER LEVELS (USEE700) FOR SITE RVT01, Riverton Processing Site  
REPORT DATE: 3/26/2008 9:25 am

| LOCATION CODE | FLOW CODE | TOP OF CASING ELEVATION (FT) | MEASUREMENT |       | DEPTH FROM TOP OF CASING (FT) | WATER ELEVATION (FT) | WATER LEVEL FLAG |
|---------------|-----------|------------------------------|-------------|-------|-------------------------------|----------------------|------------------|
|               |           |                              | DATE        | TIME  |                               |                      |                  |
| 0824          |           | 4928.27                      | 11/15/2007  |       | 6.35                          | 4921.92              |                  |
| 0826          |           | 4936.98                      | 06/06/2007  | 08:26 | 7.32                          | 4929.66              |                  |
|               |           | 4936.98                      | 11/14/2007  |       | 8.17                          | 4928.81              |                  |

RECORDS: SELECTED FROM USEE700 WHERE site\_code='RVT01' AND LOG\_DATE between #1/1/2007# and #12/31/2007#

FLOW CODES:      C    CROSS GRADIENT                  D    DOWN GRADIENT                  O    ON-SITE  
                      U    UPGRADIENT

WATER LEVEL FLAGS:

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## **Appendix C**

### **Domestic Well Data**

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CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 3:19 pm

| PARAMETER                                 | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE: DATE | ID   | ZONE COMPL. | FLOW REL. | RESULT  | QUALIFIERS: LAB DATA QA | DETECTION LIMIT | UN-CERTAINTY |
|---|-------|-------------|---------------|--------------|------|-------------|-----------|---------|-------------------------|-----------------|--------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | mg/L  | 0405        | WL            | 06/05/2007   | N001 | NR          | N         | 110     | #                       | -               | -            |
|   | mg/L  | 0405        | WL            | 11/13/2007   | N001 | NR          | N         | 29      | #                       | -               | -            |
|   | mg/L  | 0430        | WL            | 06/07/2007   | N001 | NR          | N         | 156     | #                       | -               | -            |
|   | mg/L  | 0430        | WL            | 11/12/2007   | N001 | NR          | N         | 132     | #                       | -               | -            |
|   | mg/L  | 0436        | WL            | 06/05/2007   | N001 | NR          | N         | 160     | #                       | -               | -            |
|   | mg/L  | 0436        | WL            | 11/14/2007   | N001 | NR          | N         | 159     | #                       | -               | -            |
|   | mg/L  | 0454        | WL            | 06/05/2007   | N001 |             |           | 149     | #                       | -               | -            |
|   | mg/L  | 0460        | WL            | 06/05/2007   | N001 | NR          | N         | 165     | #                       | -               | -            |
|   | mg/L  | 0460        | WL            | 11/14/2007   | N001 | NR          | N         | 194     | #                       | -               | -            |
|   | mg/L  | 0828        | WL            | 06/05/2007   | N001 |             | O         | 152     | #                       | -               | -            |
|   | mg/L  | 0828        | WL            | 11/14/2007   | N001 |             | O         | 168     | #                       | -               | -            |
| Manganese                                 | mg/L  | 0405        | WL            | 06/05/2007   | N001 | NR          | N         | 0.0026  | B                       | # 8.4E-05       | -            |
|   | mg/L  | 0405        | WL            | 11/13/2007   | N001 | NR          | N         | 0.0038  | B                       | # 0.00016       | -            |
|   | mg/L  | 0430        | WL            | 06/07/2007   | N001 | NR          | N         | 0.0052  |                         | # 8.4E-05       | -            |
|   | mg/L  | 0430        | WL            | 11/12/2007   | N001 | NR          | N         | 0.014   |                         | # 0.00016       | -            |
|   | mg/L  | 0436        | WL            | 06/05/2007   | N001 | NR          | N         | 0.0055  |                         | # 8.4E-05       | -            |
|   | mg/L  | 0436        | WL            | 11/14/2007   | N001 | NR          | N         | 0.004   | B                       | # 0.00016       | -            |
|   | mg/L  | 0454        | WL            | 06/05/2007   | N001 |             |           | 0.001   | B U                     | # 8.4E-05       | -            |
|   | mg/L  | 0460        | WL            | 06/05/2007   | N001 | NR          | N         | 0.0016  | B                       | # 8.4E-05       | -            |
|   | mg/L  | 0460        | WL            | 11/14/2007   | N001 | NR          | N         | 0.00087 | B                       | # 0.00016       | -            |
|   | mg/L  | 0828        | WL            | 06/05/2007   | N001 |             | O         | 0.0074  |                         | # 8.4E-05       | -            |
|   | mg/L  | 0828        | WL            | 11/14/2007   | N001 |             | O         | 0.0088  | U                       | # 0.00016       | -            |
| Molybdenum                                | mg/L  | 0405        | WL            | 06/05/2007   | N001 | NR          | N         | 0.0029  |                         | # 0.00008       | -            |
|   | mg/L  | 0405        | WL            | 11/13/2007   | N001 | NR          | N         | 0.0051  |                         | # 9.8E-05       | -            |
|   | mg/L  | 0430        | WL            | 06/07/2007   | N001 | NR          | N         | 0.0022  |                         | # 0.00008       | -            |
|   | mg/L  | 0430        | WL            | 11/12/2007   | N001 | NR          | N         | 0.0023  |                         | # 9.8E-05       | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 3:19 pm

| PARAMETER                  | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |         |    | DETECTION LIMIT | UN-CERTAINTY |
|----------------------------|-------|-------------|---------------|------------|------|-------------|-----------|--------|-------------|---------|----|-----------------|--------------|
|                            |       |             |               | DATE       | ID   |             |           |        | LAB         | DATA    | QA |                 |              |
| Molybdenum                 | mg/L  | 0436        | WL            | 06/05/2007 | N001 | NR          | N         | 0.0039 | #           | 0.00008 | -  |                 |              |
|                            | mg/L  | 0436        | WL            | 11/14/2007 | N001 | NR          | N         | 0.0037 | #           | 9.8E-05 | -  |                 |              |
|                            | mg/L  | 0454        | WL            | 06/05/2007 | N001 |             |           | 0.003  | #           | 0.00008 | -  |                 |              |
|                            | mg/L  | 0460        | WL            | 06/05/2007 | N001 | NR          | N         | 0.0025 | #           | 0.00008 | -  |                 |              |
|                            | mg/L  | 0460        | WL            | 11/14/2007 | N001 | NR          | N         | 0.0031 | #           | 9.8E-05 | -  |                 |              |
|                            | mg/L  | 0828        | WL            | 06/05/2007 | N001 | O           |           | 0.0036 | #           | 0.00008 | -  |                 |              |
|                            | mg/L  | 0828        | WL            | 11/14/2007 | N001 | O           |           | 0.0038 | #           | 9.8E-05 | -  |                 |              |
| Oxidation Reduction Potent | mV    | 0405        | WL            | 06/05/2007 | N001 | NR          | N         | 26     | #           | -       | -  |                 |              |
|                            | mV    | 0405        | WL            | 11/13/2007 | N001 | NR          | N         | -98    | #           | -       | -  |                 |              |
|                            | mV    | 0430        | WL            | 06/07/2007 | N001 | NR          | N         | 54     | #           | -       | -  |                 |              |
|                            | mV    | 0430        | WL            | 11/12/2007 | N001 | NR          | N         | 129    | #           | -       | -  |                 |              |
|                            | mV    | 0436        | WL            | 06/05/2007 | N001 | NR          | N         | 75     | #           | -       | -  |                 |              |
|                            | mV    | 0436        | WL            | 11/14/2007 | N001 | NR          | N         | 33     | #           | -       | -  |                 |              |
|                            | mV    | 0454        | WL            | 06/05/2007 | N001 |             |           | 89     | #           | -       | -  |                 |              |
|                            | mV    | 0460        | WL            | 06/05/2007 | N001 | NR          | N         | 27     | #           | -       | -  |                 |              |
|                            | mV    | 0460        | WL            | 11/14/2007 | N001 | NR          | N         | -10    | #           | -       | -  |                 |              |
|                            | mV    | 0828        | WL            | 06/05/2007 | N001 | O           |           | 65     | #           | -       | -  |                 |              |
|                            | mV    | 0828        | WL            | 11/14/2007 | N001 | O           |           | 15     | #           | -       | -  |                 |              |
| pH                         | s.u.  | 0405        | WL            | 06/05/2007 | N001 | NR          | N         | 8.66   | #           | -       | -  |                 |              |
|                            | s.u.  | 0405        | WL            | 11/13/2007 | N001 | NR          | N         | 9.21   | #           | -       | -  |                 |              |
|                            | s.u.  | 0430        | WL            | 06/07/2007 | N001 | NR          | N         | 8.60   | #           | -       | -  |                 |              |
|                            | s.u.  | 0430        | WL            | 11/12/2007 | N001 | NR          | N         | 8.27   | #           | -       | -  |                 |              |
|                            | s.u.  | 0436        | WL            | 06/05/2007 | N001 | NR          | N         | 8.57   | #           | -       | -  |                 |              |
|                            | s.u.  | 0436        | WL            | 11/14/2007 | N001 | NR          | N         | 8.76   | #           | -       | -  |                 |              |
|                            | s.u.  | 0454        | WL            | 06/05/2007 | N001 |             |           | 8.78   | #           | -       | -  |                 |              |
|                            | s.u.  | 0460        | WL            | 06/05/2007 | N001 | NR          | N         | 8.41   | #           | -       | -  |                 |              |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 3:19 pm

| PARAMETER            | UNITS    | LOCATION ID | LOCATION TYPE | SAMPLE DATE | SAMPLE ID | ZONE COMPL. | FLOW REL. | RESULT | QUALIFIERS: |      |    | DETECTION LIMIT | UN-CERTAINTY |
|----------------------|----------|-------------|---------------|-------------|-----------|-------------|-----------|--------|-------------|------|----|-----------------|--------------|
|                      |          |             |               |             |           |             |           |        | LAB         | DATA | QA |                 |              |
| pH                   | s.u.     | 0460        | WL            | 11/14/2007  | N001      | NR          | N         | 8.89   | #           | -    | -  | -               | -            |
|                      | s.u.     | 0828        | WL            | 06/05/2007  | N001      |             | O         | 8.69   | #           | -    | -  | -               | -            |
|                      | s.u.     | 0828        | WL            | 11/14/2007  | N001      |             | O         | 8.80   | #           | -    | -  | -               | -            |
| Specific Conductance | umhos/cm | 0405        | WL            | 06/05/2007  | N001      | NR          | N         | 913    | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0405        | WL            | 11/13/2007  | N001      | NR          | N         | 988    | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0430        | WL            | 06/07/2007  | N001      | NR          | N         | 756    | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0430        | WL            | 11/12/2007  | N001      | NR          | N         | 7.99   | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0436        | WL            | 06/05/2007  | N001      | NR          | N         | 855    | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0436        | WL            | 11/14/2007  | N001      | NR          | N         | 837    | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0454        | WL            | 06/05/2007  | N001      |             |           | 626    | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0460        | WL            | 06/05/2007  | N001      | NR          | N         | 704    | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0460        | WL            | 11/14/2007  | N001      | NR          | N         | 716    | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0828        | WL            | 06/05/2007  | N001      |             | O         | 848    | #           | -    | -  | -               | -            |
|                      | umhos/cm | 0828        | WL            | 11/14/2007  | N001      |             | O         | 833    | #           | -    | -  | -               | -            |
| Sulfate              | mg/L     | 0405        | WL            | 06/05/2007  | N001      | NR          | N         | 290    | #           | 5    | -  | -               | -            |
|                      | mg/L     | 0405        | WL            | 11/13/2007  | N001      | NR          | N         | 390    | #           | 2.5  | -  | -               | -            |
|                      | mg/L     | 0430        | WL            | 06/07/2007  | N001      | NR          | N         | 180    | #           | 5    | -  | -               | -            |
|                      | mg/L     | 0430        | WL            | 11/12/2007  | N001      | NR          | N         | 200    | #           | 2.5  | -  | -               | -            |
|                      | mg/L     | 0436        | WL            | 06/05/2007  | N001      | NR          | N         | 230    | #           | 5    | -  | -               | -            |
|                      | mg/L     | 0436        | WL            | 11/14/2007  | N001      | NR          | N         | 240    | #           | 2.5  | -  | -               | -            |
|                      | mg/L     | 0454        | WL            | 06/05/2007  | N001      |             |           | 130    | #           | 5    | -  | -               | -            |
|                      | mg/L     | 0460        | WL            | 06/05/2007  | N001      | NR          | N         | 160    | #           | 5    | -  | -               | -            |
|                      | mg/L     | 0460        | WL            | 11/14/2007  | N001      | NR          | N         | 170    | #           | 2.5  | -  | -               | -            |
|                      | mg/L     | 0828        | WL            | 06/05/2007  | N001      |             | O         | 220    | #           | 5    | -  | -               | -            |
|                      | mg/L     | 0828        | WL            | 11/14/2007  | N001      |             | O         | 240    | #           | 2.5  | -  | -               | -            |
| Temperature          | C        | 0405        | WL            | 06/05/2007  | N001      | NR          | N         | 13.50  | #           | -    | -  | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 3:19 pm

| PARAMETER   | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE:    |      | ZONE COMPL. | FLOW REL. | RESULT  | QUALIFIERS: |      |         | DETECTION LIMIT | UN-CERTAINTY |
|-------------|-------|-------------|---------------|------------|------|-------------|-----------|---------|-------------|------|---------|-----------------|--------------|
|             |       |             |               | DATE       | ID   |             |           |         | LAB         | DATA | QA      |                 |              |
| Temperature | C     | 0405        | WL            | 11/13/2007 | N001 | NR          | N         | 10.26   |             | #    | -       | -               | -            |
|             | C     | 0430        | WL            | 06/07/2007 | N001 | NR          | N         | 11.26   |             | #    | -       | -               | -            |
|             | C     | 0430        | WL            | 11/12/2007 | N001 | NR          | N         | 11.30   |             | #    | -       | -               | -            |
|             | C     | 0436        | WL            | 06/05/2007 | N001 | NR          | N         | 21.97   |             | #    | -       | -               | -            |
|             | C     | 0436        | WL            | 11/14/2007 | N001 | NR          | N         | 13.69   |             | #    | -       | -               | -            |
|             | C     | 0454        | WL            | 06/05/2007 | N001 |             |           | 12.93   |             | #    | -       | -               | -            |
|             | C     | 0460        | WL            | 06/05/2007 | N001 | NR          | N         | 21.38   |             | #    | -       | -               | -            |
|             | C     | 0460        | WL            | 11/14/2007 | N001 | NR          | N         | 20.4    |             | #    | -       | -               | -            |
|             | C     | 0828        | WL            | 06/05/2007 | N001 | O           |           | 15.83   |             | #    | -       | -               | -            |
|             | C     | 0828        | WL            | 11/14/2007 | N001 | O           |           | 11.07   |             | #    | -       | -               | -            |
| Turbidity   | NTU   | 0405        | WL            | 06/05/2007 | N001 | NR          | N         | 7.54    |             | #    | -       | -               | -            |
|             | NTU   | 0405        | WL            | 11/13/2007 | N001 | NR          | N         | 2.88    |             | #    | -       | -               | -            |
|             | NTU   | 0430        | WL            | 06/07/2007 | N001 | NR          | N         | 1.71    |             | #    | -       | -               | -            |
|             | NTU   | 0430        | WL            | 11/12/2007 | N001 | NR          | N         | 2.82    |             | #    | -       | -               | -            |
|             | NTU   | 0436        | WL            | 06/05/2007 | N001 | NR          | N         | 1.82    |             | #    | -       | -               | -            |
|             | NTU   | 0436        | WL            | 11/14/2007 | N001 | NR          | N         | 3.99    |             | #    | -       | -               | -            |
|             | NTU   | 0454        | WL            | 06/05/2007 | N001 |             |           | 1.45    |             | #    | -       | -               | -            |
|             | NTU   | 0460        | WL            | 06/05/2007 | N001 | NR          | N         | 2.75    |             | #    | -       | -               | -            |
|             | NTU   | 0460        | WL            | 11/14/2007 | N001 | NR          | N         | 1.30    |             | #    | -       | -               | -            |
|             | NTU   | 0828        | WL            | 06/05/2007 | N001 | O           |           | 2.80    |             | #    | -       | -               | -            |
|             | NTU   | 0828        | WL            | 11/14/2007 | N001 | O           |           | 1.12    |             | #    | -       | -               | -            |
| Uranium     | mg/L  | 0405        | WL            | 06/05/2007 | N001 | NR          | N         | 0.00005 | B           | U    | #       | 4.6E-06         | -            |
|             | mg/L  | 0405        | WL            | 11/13/2007 | N001 | NR          | N         | 0.00002 | B           | U    | #       | 1.2E-05         | -            |
|             | mg/L  | 0430        | WL            | 06/07/2007 | N001 | NR          | N         | 0.00003 | B           | U    | #       | 4.6E-06         | -            |
|             | mg/L  | 0430        | WL            | 11/12/2007 | N001 | NR          | N         | 0.00003 | B           | U    | #       | 1.2E-05         | -            |
|             | mg/L  | 0436        | WL            | 06/05/2007 | N001 | NR          | N         | 0.00012 |             | #    | 4.6E-06 | -               | -            |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 3:19 pm

| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE: DATE | ID   | ZONE COMPL. | FLOW REL. | RESULT  | QUALIFIERS: LAB | DATA QA | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|--------------|------|-------------|-----------|---------|-----------------|---------|-----------------|--------------|
| Uranium   | mg/L  | 0436        | WL            | 11/14/2007   | N001 | NR          | N         | 0.00013 |                 | #       | 1.2E-05         | -            |
|           | mg/L  | 0454        | WL            | 06/05/2007   | N001 |             |           | 0.00007 | B               | U       | #               | 4.6E-06      |
|           | mg/L  | 0460        | WL            | 06/05/2007   | N001 | NR          | N         | 0.00003 | B               | U       | #               | 4.6E-06      |
|           | mg/L  | 0460        | WL            | 11/14/2007   | N001 | NR          | N         | 0.00005 | B               | U       | #               | 1.2E-05      |
|           | mg/L  | 0828        | WL            | 06/05/2007   | N001 |             | O         | 0.00018 |                 | #       | 4.6E-06         | -            |
|           | mg/L  | 0828        | WL            | 11/14/2007   | N001 |             | O         | 0.00017 |                 | U       | #               | 1.2E-05      |

CLASSIC GROUND WATER QUALITY DATA BY PARAMETER WITH ZONE (USEE201) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 3:19 pm

| PARAMETER | UNITS | LOCATION ID | LOCATION TYPE | SAMPLE: DATE | ZONE ID | FLOW COMPL. | RESULT | QUALIFIERS: LAB DATA QA | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|---------------|--------------|---------|-------------|--------|-------------------------|-----------------|--------------|
|-----------|-------|-------------|---------------|--------------|---------|-------------|--------|-------------------------|-----------------|--------------|

RECORDS: SELECTED FROM USEE200 WHERE site\_code='RVT01' AND location\_code in('0405','0430','0436','0454','0460','0828') AND quality\_assurance = TRUE AND (data\_validation\_qualifiers IS NULL OR data\_validation\_qualifiers NOT LIKE '%N%' AND data\_validation\_qualifiers NOT LIKE '%R%' AND data\_validation\_qualifiers NOT LIKE '%X%' ) AND DATE\_SAMPLED between #1/1/2007# and #12/31/2007#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: WL WELL

ZONES OF COMPLETION:

NR NO RECOVERY OF DATA FOR CLASSIFYING

FLOW CODES: N UNKNOWN O ON-SITE

LAB QUALIFIERS:

- Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFQA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC)
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- |  |  |  |
|--|--|--|
| F Low flow sampling method used.                     | G Possible grout contamination, pH > 9.  | J Estimated value.                             |
| L Less than 3 bore volumes purged prior to sampling. | N Presumptive evidence that analyte is present. The analyte is "tentatively identified". | Q Qualitative result due to sampling technique |
| R Unusable result.                                   | U Parameter analyzed for but was not detected.   | X Location is undefined.                       |

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

**Appendix D**

**Surface Water Quality Data**

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SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 1:47 pm

| PARAMETER                                      | UNITS | LOCATION ID | SAMPLE DATE | ID   | RESULT | QUALIFIERS: |         |    | DETECTION LIMIT | UN-CERTAINTY |
|--|-------|-------------|-------------|------|--------|-------------|---------|----|-----------------|--------------|
|  |       |             |             |      |        | LAB         | DATA    | QA |                 |              |
| Alkalinity, Total (As CaCO <sub>3</sub> ) mg/L | 0747  | 06/06/2007  | 0001        | 257  |        | #           |         |    | -               | -            |
|  | mg/L  | 0747        | 11/14/2007  | 0001 | 364    | #           |         |    | -               | -            |
|  | mg/L  | 0749        | 06/05/2007  | N001 | 126    | #           |         |    | -               | -            |
|  | mg/L  | 0749        | 11/14/2007  | 0001 | 117    | #           |         |    | -               | -            |
|  | mg/L  | 0794        | 06/05/2007  | N001 | 188    | #           |         |    | -               | -            |
|  | mg/L  | 0794        | 11/14/2007  | 0001 | 169    | #           |         |    | -               | -            |
|  | mg/L  | 0796        | 06/05/2007  | 0001 | 81     | #           |         |    | -               | -            |
|  | mg/L  | 0796        | 11/13/2007  | N001 | 137    | #           |         |    | -               | -            |
|  | mg/L  | 0810        | 06/07/2007  | 0001 | 393    | #           |         |    | -               | -            |
|  | mg/L  | 0810        | 11/13/2007  | 0001 | 414    | #           |         |    | -               | -            |
|  | mg/L  | 0811        | 06/07/2007  | 0001 | 60     | #           |         |    | -               | -            |
|  | mg/L  | 0811        | 11/14/2007  | N001 | 156    | #           |         |    | -               | -            |
|  | mg/L  | 0812        | 06/07/2007  | 0001 | 60     | #           |         |    | -               | -            |
|  | mg/L  | 0812        | 11/14/2007  | N001 | 158    | #           |         |    | -               | -            |
| Dissolved Oxygen                               | 0822  | 06/05/2007  | N001        | 215  |        | #           |         |    | -               | -            |
|  | mg/L  | 0822        | 11/13/2007  | N001 | 213    | #           |         |    | -               | -            |
| Manganese                                      | 0823  | 06/06/2007  | 0001        | 75   |        | #           |         |    | -               | -            |
|  | mg/L  | 0823        | 11/14/2007  | N001 | 117    | #           |         |    | -               | -            |
|  | mg/L  | 0810        | 06/07/2007  | N001 | 8.32   | #           |         |    | -               | -            |
|  | mg/L  | 0811        | 06/07/2007  | N001 | 8.79   | #           |         |    | -               | -            |
|  | mg/L  | 0747        | 06/06/2007  | 0001 | 0.180  | #           | 8.4E-05 |    | -               | -            |
|  | mg/L  | 0747        | 06/06/2007  | 0002 | 0.170  | #           | 8.4E-05 |    | -               | -            |
|  | mg/L  | 0747        | 11/14/2007  | 0001 | 0.490  | #           | 0.00016 |    | -               | -            |
|  | mg/L  | 0747        | 11/14/2007  | 0002 | 0.490  | #           | 0.00016 |    | -               | -            |
|  | mg/L  | 0749        | 06/05/2007  | N001 | 0.017  | #           | 8.4E-05 |    | -               | -            |
|  | mg/L  | 0749        | 11/14/2007  | 0001 | 0.025  | #           | 0.00016 |    | -               | -            |
|  | mg/L  | 0794        | 06/05/2007  | N001 | 0.019  | #           | 8.4E-05 |    | -               | -            |
|  | mg/L  | 0794        | 11/14/2007  | 0001 | 0.023  | #           | 0.00016 |    | -               | -            |
|  | mg/L  | 0796        | 06/05/2007  | 0001 | 0.0092 | #           | 8.4E-05 |    | -               | -            |
|  | mg/L  | 0796        | 11/13/2007  | N001 | 0.031  | #           | 0.00016 |    | -               | -            |
|  | mg/L  | 0810        | 06/07/2007  | 0001 | 0.024  | #           | 8.4E-05 |    | -               | -            |
|  | mg/L  | 0810        | 11/13/2007  | 0001 | 0.029  | #           | 0.00016 |    | -               | -            |
|  | mg/L  | 0811        | 06/07/2007  | 0001 | 0.0052 | #           | 8.4E-05 |    | -               | -            |
|  | mg/L  | 0811        | 11/14/2007  | N001 | 0.030  | #           | 0.00016 |    | -               | -            |
|  | mg/L  | 0812        | 06/07/2007  | 0001 | 0.011  | #           | 8.4E-05 |    | -               | -            |
|  | mg/L  | 0812        | 11/14/2007  | N001 | 0.030  | #           | 0.00016 |    | -               | -            |
|  | mg/L  | 0822        | 06/05/2007  | N001 | 0.022  | #           | 8.4E-05 |    | -               | -            |
|  | mg/L  | 0822        | 11/13/2007  | N001 | 0.064  | #           | 0.00016 |    | -               | -            |

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 1:47 pm

| PARAMETER                     | UNITS | LOCATION |            | SAMPLE: |  | RESULT   | QUALIFIERS: |      |    | DETECTION LIMIT | UN-CERTAINTY |
|-------------------------------|-------|----------|------------|---------|--|----------|-------------|------|----|-----------------|--------------|
|                               |       | ID       | DATE       | ID      |  |          | LAB         | DATA | QA |                 |              |
| Manganese                     | mg/L  | 0823     | 06/06/2007 | 0001    |  | 0.0098   |             |      | #  | 8.4E-05         | -            |
|                               | mg/L  | 0823     | 11/14/2007 | N001    |  | 0.0098   | U           |      | #  | 0.00016         | -            |
| Molybdenum                    | mg/L  | 0747     | 06/06/2007 | 0001    |  | 0.016    |             |      | #  | 0.00016         | -            |
|                               | mg/L  | 0747     | 06/06/2007 | 0002    |  | 0.017    |             |      | #  | 0.00016         | -            |
|                               | mg/L  | 0747     | 11/14/2007 | 0001    |  | 0.022    |             |      | #  | 0.00049         | -            |
|                               | mg/L  | 0747     | 11/14/2007 | 0002    |  | 0.024    |             |      | #  | 0.00049         | -            |
|                               | mg/L  | 0749     | 06/05/2007 | N001    |  | 0.0057   |             |      | #  | 0.00008         | -            |
|                               | mg/L  | 0749     | 11/14/2007 | 0001    |  | 0.0077   |             |      | #  | 9.8E-05         | -            |
|                               | mg/L  | 0794     | 06/05/2007 | N001    |  | 0.0015   |             |      | #  | 0.00008         | -            |
|                               | mg/L  | 0794     | 11/14/2007 | 0001    |  | 0.0014   |             |      | #  | 9.8E-05         | -            |
|                               | mg/L  | 0796     | 06/05/2007 | 0001    |  | 0.0007 B | U           |      | #  | 0.00008         | -            |
|                               | mg/L  | 0796     | 11/13/2007 | N001    |  | 0.0018   |             |      | #  | 9.8E-05         | -            |
|                               | mg/L  | 0810     | 06/07/2007 | 0001    |  | 0.0012   |             |      | #  | 0.00008         | -            |
|                               | mg/L  | 0810     | 11/13/2007 | 0001    |  | 0.0021   |             |      | #  | 9.8E-05         | -            |
|                               | mg/L  | 0811     | 06/07/2007 | 0001    |  | 0.0005 B | U           |      | #  | 0.00008         | -            |
|                               | mg/L  | 0811     | 11/14/2007 | N001    |  | 0.0014   |             |      | #  | 9.8E-05         | -            |
|                               | mg/L  | 0812     | 06/07/2007 | 0001    |  | 0.0005 B | U           |      | #  | 0.00008         | -            |
|                               | mg/L  | 0812     | 11/14/2007 | N001    |  | 0.0014   |             |      | #  | 9.8E-05         | -            |
|                               | mg/L  | 0822     | 06/05/2007 | N001    |  | 0.003    |             |      | #  | 0.00008         | -            |
|                               | mg/L  | 0822     | 11/13/2007 | N001    |  | 0.005    |             |      | #  | 9.8E-05         | -            |
|                               | mg/L  | 0823     | 06/06/2007 | 0001    |  | 0.0026   |             |      | #  | 0.00008         | -            |
|                               | mg/L  | 0823     | 11/14/2007 | N001    |  | 0.0063 E |             |      | #  | 9.8E-05         | -            |
| Oxidation Reduction Potent mV | mV    | 0747     | 06/06/2007 | N001    |  | 100      |             |      | #  | -               | -            |
|                               | mV    | 0747     | 11/14/2007 | N001    |  | 52       |             |      | #  | -               | -            |
|                               | mV    | 0749     | 06/05/2007 | N001    |  | 25       |             |      | #  | -               | -            |
|                               | mV    | 0749     | 11/14/2007 | N001    |  | 3        |             |      | #  | -               | -            |
|                               | mV    | 0794     | 06/05/2007 | N001    |  | 92       |             |      | #  | -               | -            |
|                               | mV    | 0794     | 11/14/2007 | N001    |  | 42       |             |      | #  | -               | -            |
|                               | mV    | 0796     | 06/05/2007 | N001    |  | 45       |             |      | #  | -               | -            |
|                               | mV    | 0796     | 11/13/2007 | N001    |  | 123.0    |             |      | #  | -               | -            |
|                               | mV    | 0810     | 06/07/2007 | N001    |  | 123      |             |      | #  | -               | -            |
|                               | mV    | 0810     | 11/13/2007 | N001    |  | 64.6     |             |      | #  | -               | -            |
|                               | mV    | 0811     | 06/07/2007 | N001    |  | 120      |             |      | #  | -               | -            |
|                               | mV    | 0811     | 11/14/2007 | N001    |  | 74       |             |      | #  | -               | -            |
|                               | mV    | 0812     | 06/07/2007 | N001    |  | 190      |             |      | #  | -               | -            |
|                               | mV    | 0812     | 11/14/2007 | N001    |  | 48       |             |      | #  | -               | -            |
|                               | mV    | 0822     | 06/05/2007 | N001    |  | 10       |             |      | #  | -               | -            |
|                               | mV    | 0822     | 11/13/2007 | N001    |  | -21      |             |      | #  | -               | -            |

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 1:47 pm

| PARAMETER                  | UNITS    | LOCATION ID | SAMPLE DATE | ID   | RESULT | QUALIFIERS: |      |    | DETECTION LIMIT | UN-CERTAINTY |
|----------------------------|----------|-------------|-------------|------|--------|-------------|------|----|-----------------|--------------|
|                            |          |             |             |      |        | LAB         | DATA | QA |                 |              |
| Oxidation Reduction Potent | mV       | 0823        | 06/06/2007  | N001 | 41     |             |      | #  | -               | -            |
|                            | mV       | 0823        | 11/14/2007  | N001 | 35     |             |      | #  | -               | -            |
| pH                         | s.u.     | 0747        | 06/06/2007  | N001 | 7.80   |             |      | #  | -               | -            |
|                            | s.u.     | 0747        | 11/14/2007  | N001 | 7.68   |             |      | #  | -               | -            |
|                            | s.u.     | 0749        | 06/05/2007  | N001 | 8.01   |             |      | #  | -               | -            |
|                            | s.u.     | 0749        | 11/14/2007  | N001 | 7.89   |             |      | #  | -               | -            |
|                            | s.u.     | 0794        | 06/05/2007  | N001 | 6.90   |             |      | #  | -               | -            |
|                            | s.u.     | 0794        | 11/14/2007  | N001 | 8.38   |             |      | #  | -               | -            |
|                            | s.u.     | 0796        | 06/05/2007  | N001 | 7.95   |             |      | #  | -               | -            |
|                            | s.u.     | 0796        | 11/13/2007  | N001 | 8.29   |             |      | #  | -               | -            |
|                            | s.u.     | 0810        | 06/07/2007  | N001 | 8.80   |             |      | #  | -               | -            |
|                            | s.u.     | 0810        | 11/13/2007  | N001 | 8.85   |             |      | #  | -               | -            |
|                            | s.u.     | 0811        | 06/07/2007  | N001 | 8.58   |             |      | #  | -               | -            |
|                            | s.u.     | 0811        | 11/14/2007  | N001 | 8.36   |             |      | #  | -               | -            |
|                            | s.u.     | 0812        | 06/07/2007  | N001 | 8.10   |             |      | #  | -               | -            |
|                            | s.u.     | 0812        | 11/14/2007  | N001 | 8.37   |             |      | #  | -               | -            |
| Radium-226                 | pCi/L    | 0822        | 06/05/2007  | N001 | 0.671  | U           |      | #  | 0.671           | ± 0.39       |
|                            | pCi/L    | 0822        | 11/13/2007  | N001 | 0.665  | U           |      | #  | 0.665           | ± 0.35       |
| Radium-228                 | pCi/L    | 0822        | 06/05/2007  | N001 | 0.718  | U           |      | #  | 0.718           | ± 0.38       |
|                            | pCi/L    | 0822        | 11/13/2007  | N001 | 0.942  |             | J    | #  | 0.649           | ± 0.44       |
| Specific Conductance       | umhos/cm | 0747        | 06/06/2007  | N001 | 930    |             |      | #  | -               | -            |
|                            | umhos/cm | 0747        | 11/14/2007  | N001 | 1120   |             |      | #  | -               | -            |
|                            | umhos/cm | 0749        | 06/05/2007  | N001 | 4419   |             |      | #  | -               | -            |
|                            | umhos/cm | 0749        | 11/14/2007  | N001 | 4132   |             |      | #  | -               | -            |
|                            | umhos/cm | 0794        | 06/05/2007  | N001 | 581    |             |      | #  | -               | -            |
|                            | umhos/cm | 0794        | 11/14/2007  | N001 | 734    |             |      | #  | -               | -            |
|                            | umhos/cm | 0796        | 06/05/2007  | N001 | 368    |             |      | #  | -               | -            |
|                            | umhos/cm | 0796        | 11/13/2007  | N001 | 750    |             |      | #  | -               | -            |
|                            | umhos/cm | 0810        | 06/07/2007  | N001 | 1290   |             |      | #  | -               | -            |
|                            | umhos/cm | 0810        | 11/13/2007  | N001 | 1361   |             |      | #  | -               | -            |
|                            | umhos/cm | 0811        | 06/07/2007  | N001 | 303    |             |      | #  | -               | -            |
|                            | umhos/cm | 0811        | 11/14/2007  | N001 | 731    |             |      | #  | -               | -            |
|                            | umhos/cm | 0812        | 06/07/2007  | N001 | 262    |             |      | #  | -               | -            |
|                            | umhos/cm | 0812        | 11/14/2007  | N001 | 727    |             |      | #  | -               | -            |

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 1:47 pm

| PARAMETER            | UNITS    | LOCATION ID | SAMPLE: DATE | ID   | RESULT | QUALIFIERS: |      |     | DETECTION LIMIT | UN-CERTAINTY |
|----------------------|----------|-------------|--------------|------|--------|-------------|------|-----|-----------------|--------------|
|                      |          |             |              |      |        | LAB         | DATA | QA  |                 |              |
| Specific Conductance | umhos/cm | 0822        | 06/05/2007   | N001 | 2844   |             | #    | -   | -               | -            |
|                      | umhos/cm | 0822        | 11/13/2007   | N001 | 2135   |             | #    | -   | -               | -            |
|                      | umhos/cm | 0823        | 06/06/2007   | N001 | 1246   |             | #    | -   | -               | -            |
|                      | umhos/cm | 0823        | 11/14/2007   | N001 | 873    |             | #    | -   | -               | -            |
| Sulfate              | mg/L     | 0747        | 06/06/2007   | 0001 | 240    |             | #    | 5   | -               | -            |
|                      | mg/L     | 0747        | 06/06/2007   | 0002 | 230    |             | #    | 5   | -               | -            |
|                      | mg/L     | 0747        | 11/14/2007   | 0001 | 290    |             | #    | 5   | -               | -            |
|                      | mg/L     | 0747        | 11/14/2007   | 0002 | 290    |             | #    | 5   | -               | -            |
|                      | mg/L     | 0749        | 06/05/2007   | N001 | 2100   |             | #    | 25  | -               | -            |
|                      | mg/L     | 0749        | 11/14/2007   | 0001 | 2100   |             | #    | 25  | -               | -            |
|                      | mg/L     | 0794        | 06/05/2007   | N001 | 100    |             | #    | 5   | -               | -            |
|                      | mg/L     | 0794        | 11/14/2007   | 0001 | 240    |             | #    | 2.5 | -               | -            |
|                      | mg/L     | 0796        | 06/05/2007   | 0001 | 91     |             | #    | 2.5 | -               | -            |
|                      | mg/L     | 0796        | 11/13/2007   | N001 | 240    |             | #    | 2.5 | -               | -            |
|                      | mg/L     | 0810        | 06/07/2007   | 0001 | 310    |             | #    | 10  | -               | -            |
|                      | mg/L     | 0810        | 11/13/2007   | 0001 | 340    |             | #    | 5   | -               | -            |
|                      | mg/L     | 0811        | 06/07/2007   | 0001 | 62     |             | #    | 1   | -               | -            |
|                      | mg/L     | 0811        | 11/14/2007   | N001 | 240    |             | #    | 2.5 | -               | -            |
|                      | mg/L     | 0812        | 06/07/2007   | 0001 | 60     |             | #    | 1   | -               | -            |
|                      | mg/L     | 0812        | 11/14/2007   | N001 | 250    |             | #    | 2.5 | -               | -            |
|                      | mg/L     | 0822        | 06/05/2007   | N001 | 1100   |             | #    | 25  | -               | -            |
|                      | mg/L     | 0822        | 11/13/2007   | N001 | 960    | N           | #    | 10  | -               | -            |
|                      | mg/L     | 0823        | 06/06/2007   | 0001 | 420    |             | #    | 10  | -               | -            |
|                      | mg/L     | 0823        | 11/14/2007   | N001 | 290    |             | #    | 2.5 | -               | -            |
| Temperature          | C        | 0747        | 06/06/2007   | N001 | 19.21  |             | #    | -   | -               | -            |
|                      | C        | 0747        | 11/14/2007   | N001 | 6.29   |             | #    | -   | -               | -            |
|                      | C        | 0749        | 06/05/2007   | N001 | 27.79  |             | #    | -   | -               | -            |
|                      | C        | 0749        | 11/14/2007   | N001 | 20.5   |             | #    | -   | -               | -            |
|                      | C        | 0794        | 06/05/2007   | N001 | 13.23  |             | #    | -   | -               | -            |
|                      | C        | 0794        | 11/14/2007   | N001 | 4.50   |             | #    | -   | -               | -            |
|                      | C        | 0796        | 06/05/2007   | N001 | 21.13  |             | #    | -   | -               | -            |
|                      | C        | 0796        | 11/13/2007   | N001 | 3.33   |             | #    | -   | -               | -            |
|                      | C        | 0810        | 06/07/2007   | N001 | 13.60  |             | #    | -   | -               | -            |
|                      | C        | 0810        | 11/13/2007   | N001 | 5.41   |             | #    | -   | -               | -            |
|                      | C        | 0811        | 06/07/2007   | N001 | 12.13  |             | #    | -   | -               | -            |
|                      | C        | 0811        | 11/14/2007   | N001 | 5.40   |             | #    | -   | -               | -            |
|                      | C        | 0812        | 06/07/2007   | N001 | 11.35  |             | #    | -   | -               | -            |
|                      | C        | 0812        | 11/14/2007   | N001 | 5.40   |             | #    | -   | -               | -            |

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 1:47 pm

| PARAMETER   | UNITS | LOCATION ID | SAMPLE DATE | SAMPLE ID | RESULT | QUALIFIERS: LAB | DATA QA | DETECTION LIMIT | UN-CERTAINTY |
|-------------|-------|-------------|-------------|-----------|--------|-----------------|---------|-----------------|--------------|
| Temperature | C     | 0822        | 06/05/2007  | N001      | 18.01  | #               | -       | -               | -            |
|             | C     | 0822        | 11/13/2007  | N001      | 8.90   | #               | -       | -               | -            |
|             | C     | 0823        | 06/06/2007  | N001      | 20.49  | #               | -       | -               | -            |
|             | C     | 0823        | 11/14/2007  | N001      | 4.90   | #               | -       | -               | -            |
| Turbidity   | NTU   | 0747        | 06/06/2007  | 0001      | 62.2   | #               | -       | -               | -            |
|             | NTU   | 0747        | 11/14/2007  | N001      | 305    | #               | -       | -               | -            |
|             | NTU   | 0749        | 06/05/2007  | N001      | 7.78   | #               | -       | -               | -            |
|             | NTU   | 0749        | 11/14/2007  | N001      | 13.2   | #               | -       | -               | -            |
|             | NTU   | 0794        | 06/05/2007  | N001      | 9.21   | #               | -       | -               | -            |
|             | NTU   | 0794        | 11/14/2007  | N001      | 11.9   | #               | -       | -               | -            |
|             | NTU   | 0796        | 06/05/2007  | N001      | 31.3   | #               | -       | -               | -            |
|             | NTU   | 0796        | 11/13/2007  | N001      | 8.64   | #               | -       | -               | -            |
|             | NTU   | 0810        | 06/07/2007  | N001      | 12.9   | #               | -       | -               | -            |
|             | NTU   | 0810        | 11/13/2007  | N001      | 15.5   | #               | -       | -               | -            |
|             | NTU   | 0811        | 06/07/2007  | N001      | 50.0   | #               | -       | -               | -            |
|             | NTU   | 0811        | 11/14/2007  | N001      | 8.94   | #               | -       | -               | -            |
|             | NTU   | 0812        | 06/07/2007  | N001      | 84.2   | #               | -       | -               | -            |
|             | NTU   | 0812        | 11/14/2007  | N001      | 9.39   | #               | -       | -               | -            |
|             | NTU   | 0822        | 06/05/2007  | N001      | 4.71   | #               | -       | -               | -            |
|             | NTU   | 0822        | 11/13/2007  | N001      | 9.65   | #               | -       | -               | -            |
|             | NTU   | 0823        | 06/06/2007  | N001      | 34.4   | #               | -       | -               | -            |
|             | NTU   | 0823        | 11/14/2007  | N001      | 4.80   | #               | -       | -               | -            |
| Uranium     | mg/L  | 0747        | 06/06/2007  | 0001      | 0.120  | #               | 9.3E-06 | -               | -            |
|             | mg/L  | 0747        | 06/06/2007  | 0002      | 0.130  | #               | 9.3E-06 | -               | -            |
|             | mg/L  | 0747        | 11/14/2007  | 0001      | 0.190  | #               | 5.8E-05 | -               | -            |
|             | mg/L  | 0747        | 11/14/2007  | 0002      | 0.190  | #               | 5.8E-05 | -               | -            |
|             | mg/L  | 0749        | 06/05/2007  | N001      | 0.0001 | #               | 4.6E-06 | -               | -            |
|             | mg/L  | 0749        | 11/14/2007  | 0001      | 0.0004 | #               | 1.2E-05 | -               | -            |
|             | mg/L  | 0794        | 06/05/2007  | N001      | 0.0041 | #               | 4.6E-06 | -               | -            |
|             | mg/L  | 0794        | 11/14/2007  | 0001      | 0.0055 | #               | 1.2E-05 | -               | -            |
|             | mg/L  | 0796        | 06/05/2007  | 0001      | 0.0021 | #               | 4.6E-06 | -               | -            |
|             | mg/L  | 0796        | 11/13/2007  | N001      | 0.0051 | #               | 1.2E-05 | -               | -            |
|             | mg/L  | 0810        | 06/07/2007  | 0001      | 0.0063 | #               | 4.6E-06 | -               | -            |
|             | mg/L  | 0810        | 11/13/2007  | 0001      | 0.0057 | #               | 1.2E-05 | -               | -            |
|             | mg/L  | 0811        | 06/07/2007  | 0001      | 0.0015 | #               | 4.6E-06 | -               | -            |
|             | mg/L  | 0811        | 11/14/2007  | N001      | 0.0056 | #               | 1.2E-05 | -               | -            |
|             | mg/L  | 0812        | 06/07/2007  | 0001      | 0.0014 | #               | 4.6E-06 | -               | -            |
|             | mg/L  | 0812        | 11/14/2007  | N001      | 0.0058 | #               | 1.2E-05 | -               | -            |

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE RVT01, Riverton Processing Site  
 REPORT DATE: 3/21/2008 1:47 pm

| PARAMETER | UNITS | LOCATION ID | SAMPLE DATE | SAMPLE ID | RESULT | QUALIFIERS: LAB | DATA QA | DETECTION LIMIT | UN-CERTAINTY |
|-----------|-------|-------------|-------------|-----------|--------|-----------------|---------|-----------------|--------------|
| Uranium   | mg/L  | 0822        | 06/05/2007  | N001      | 0.003  | #               |         | 4.6E-06         | -            |
|           | mg/L  | 0822        | 11/13/2007  | N001      | 0.0071 | #               |         | 1.2E-05         | -            |
|           | mg/L  | 0823        | 06/06/2007  | 0001      | 0.0044 | #               |         | 4.6E-06         | -            |
|           | mg/L  | 0823        | 11/14/2007  | N001      | 0.0084 | #               |         | 1.2E-05         | -            |

RECORDS: SELECTED FROM USEE800 WHERE site\_code='RVT01' AND quality\_assurance = TRUE AND (data\_validation\_qualifiers IS NULL OR data\_validation\_qualifiers NOT LIKE '%N%' AND data\_validation\_qualifiers NOT LIKE '%R%' AND data\_validation\_qualifiers NOT LIKE '%X%') AND DATE\_SAMPLED between #1/1/2007# and #12/31/2007#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- \* Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- |  |  |
|--|--|
| F Low flow sampling method used.   | G Possible grout contamination, pH > 9.              |
| J Estimated value.   | L Less than 3 bore volumes purged prior to sampling. |
| N Presumptive evidence that analyte is present. The analyte is "tentatively identified". | Q Qualitative result due to sampling technique       |
| R Unusable result.   | U Parameter analyzed for but was not detected.       |
| X Location is undefined.   |  |

QA QUALIFIER: # = validated according to Quality Assurance guidelines.